

4 - CONSTRUCTION PLANS

This section covers public improvement, grading, landscape and irrigation and construction permit plans related to a major or minor subdivision. This section covers form, content and processing of construction plans. Although elements of this section may apply to construction plans for private improvements, the processing procedure is limited to that related to subdivisions. Submittal and processing requirements may differ for private improvement plans. For a major subdivision, the Subdivision Improvement Agreement (SIA) represents a permit to construct public improvements associated the subdivision. For minor subdivisions, a separate Construction Permit (PC) is issued (see section 4-400).

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**CONSTRUCTION PLANS
SECTION 4-100
IMPROVEMENT PLANS**

4-100 IMPROVEMENT PLANS

4-101 Purpose

Improvement plans detail construction of public improvements within existing public right-of-way or within existing easements for the purpose of constructing and maintaining public improvements. These plans are generally associated with a tentative or final map for a major subdivision.

4-102 Form and Content

4-102.1 General

- (1) Improvement plans shall be prepared by a registered civil engineer and shall be accurate engineering drawings which are technically correct and complete and shall show in detail all improvements required to be constructed or installed, including site grading unless such grading is covered by separate grading plans and permit.
- (2) Design criteria for the public improvements must conform to the standards set forth in Section 3 of this manual, Chula Vista Municipal Code Ordinances, Chula Vista Standard Drawings and Standard Specifications, CALTRANS Highway Design Manual, the San Diego County Regional Standard Drawings and other specifications as may be deemed appropriate by the City Engineer.
- (3) Improvement plans shall be clearly and legibly drawn on 24" x 36" (61cm X 91cm)(Chula Vista Standard D sheet) mylar (min. 3mils (0.08mm) thick) using black drawing ink only.
- (4) Hand lettering shall be a minimum of 1/8" (3mm) in height. Typed or computer generated lettering shall be a minimum of 1/10" (2.5mm) in height.
- (5) Minimum scale shall be 1" = 40' (1cm = 10m).
- (6) The engineer of work shall sign and stamp each sheet of the plans including engineer's registration number and expiration date.
- (7) Each sheet shall contain a title block as described in Section 4-102.2
- (8) Final improvement plans shall be submitted in digital format according to Section 1-500. Digital files shall be exact copies of the approved improvement plans.

4-102.2 Title Block; - Each sheet shall contain the Chula Vista standard title block which includes the information described below. Standard D sheet size mylars with the title block are available from the City either with or without profile grid.

- (1) **Title** - Subdivision designation, the type of improvement shown on that sheet such as sewer, street, drainage, etc., and the location or extent of such improvements.
- (2) **Drawing Numbers** - Drawing numbers will be assigned by the Engineering Division usually after the first plan check.

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- (3) Sheet Numbers - Sheets shall be numbered consecutively. Each sheet shall also show the total number of sheets in the plan.
 - (4) Work Order Number - The work order number shall be located above the title block over the block for drawing numbers. The work order will be assigned by the City and will be included in the first plan check comments.
 - (5) City Signatures - Each sheet of the approved plans will contain the following City signatures:
 - a) At approval, each sheet will be signed by a Senior Civil Engineer and the City Engineer. The cover sheet must allow a minimum 2" high X 5" wide clear area above the City approval signature block to accommodate the Senior Civil Engineer's and City Engineer's stamps.
 - b) Office, Field, Traffic - These blocks will be initialed when approved by the appropriate City personnel.
 - (6) Engineer of Work Signatures - This block must include the initials of the people responsible for designing, drafting and checking the plans as well as the signature and registration number of the engineer of work and the date signed.
 - (7) Scale - Indicate the horizontal and vertical scale for each sheet.
 - (8) Bench Mark - Bench mark description shall be shown on each sheet of the plans. Bench marks shall conform to Section 2-302.3 of this manual
 - (9) Revisions - The reference number, description, approval signature and date shall be shown for each plan revision or construction change (see Section 4-500) on each sheet affected. New mylars may not be submitted for construction changes unless otherwise approved by the City Engineer.
 - (10) Reference Drawings - The drawing numbers for all existing and adjacent improvements shall be shown on each sheet.
 - (11) Construction Record - The construction record shall include contractor's signature, inspectors' signature and date the plans are as-built (see Section 4-500).
- 4-102.3 Title Sheet(s); - The title sheet for improvement plans shall contain the following items:
- (1) Title - The subdivision name and unit number shall be placed in bold print at the top center of the title sheet.
 - (2) A vicinity map with north arrow and scale shall be indicated.
 - (3) A key map drawn to a scale of 1" = 200' (1cm=20m) shall be shown on the cover sheet which depicts the general plan of the subdivision to include roads adjacent to the subdivision, street light and fire hydrant locations, overall sewer plan, overall

drainage plan; and, if applicable, the area of improvement covered by each sheet. The key map shall have a north arrow and scale shown.

- (4) Work to be done and legend. Items in the work to be done will vary with the improvements to be constructed. Symbols used in legend shall conform with City of Chula Vista and San Diego Regional Standard symbols.
- (5) A typical cross-section of each class of existing and proposed streets. The typical section shall indicate structural section to conform to the paving note. It shall also show roadway widths, right of way widths, side slopes, shoulders, curbs, gutters, sidewalks, medians, typical street light and fire hydrant locations and relationship of centerline grade to top of curb grade. The typical section shall also make reference to elevations as shown on the profiles. Typical street cross sections shall comply with City of Chula Vista Street Design Standards.
- (6) A concise legal description to define the location of the proposed subdivision.
- (7) Tax Assessor's parcel number(s).
- (8) The name, address, telephone number and signature of the record owner or owners.
- (9) The name, address and telephone number of the subdivider, if other than owner(s).
- (10) Construction Notes - General, Special, Water, Sewer, Fire shall be added to the title sheet as necessary.
- (11) NPDES Certificate. An NPDES certificate is required on all improvement plans unless an NPDES permit was previously obtained, and still in effect, for advance grading operations. (See Section 4-209)
- (12) Engineer of Work Certificate. This certificate shall be complete and signed by the Engineer of Work as part of the as-built process (see Section 4-500).
- (13) Declaration of Responsible Charge. This certificate shall be signed by the Engineer of Work prior to City approval.
- (14) Traffic Control Plan - Construction projects involving work within the public rights of way in the City of Chula Vista shall require a determination by the City Engineer relative to the need for preparation of Traffic Control Plans. If Traffic Control Plans are required, they must be approved prior to the issuance of Construction or Utility Permits, or the finalizing of a final map.
- (15) Other Agency Signatures. If approval is required from other agencies (i.e. water company), the appropriate signature block for those agencies shall be added as deemed necessary by those agencies. Other agency signatures must be obtained prior to City approval of the improvement plans.

4-102.4 Plan and Profile Sheets - General

The plan and profile sheets of the improvement plans shall show sufficient detail of all proposed improvements and facilities to facilitate proper construction and inspection and at a minimum shall include the following:

- (1) North arrow.
- (2) Map Scale in words or figures shall be shown on both the plan and profile views. In additions, the scale shall be shown graphically on the plan view, in the event the map is enlarged or reduced.
- (3) Horizontal scale for plan and profile shall be the same and be either 1" = 10' (1cm=1m), 1" = 20' (1cm=2m) or 1" = 40' (1cm=5m).
- (4) Stationing shall generally be from left to right.
- (5) "As-Built" Certificate (to be completed through as-built process).
- (6) All data tables shall be complete (except sewer lateral table).
- (7) Existing Conditions - Existing improvements adjacent to the area of work or to be met by proposed work shall be shown by dashed lines. Any existing improvements to be relocated or removed shall be so noted on the plan view sheet containing said improvements.

4-102.5 Plan View

- (1) All existing underground utilities or facilities (sewer, water, gas, drainage, curb ramps, driveways) shall be shown, labeled, and dimensioned on both the plan and profile. Existing underground utilities shall be extended beyond the limits of work at least 50 feet (15m) on both plan and profile.
- (2) New gas distribution systems to be constructed along with subdivision improvements shall not be shown.
- (3) When possible with clarity, street, sewer and drainage designs shall be shown upon the same sheet.
- (4) Where drainage systems are complex and extend beyond the street right of way, they shall be shown on separate sheets depicting the complete system.
- (5) Driveway locations shall be shown for each lot.
- (6) Manholes shall be numbered on both plan and profile sheets.
- (7) Provide a sewer lateral data table. Each residential lot shall be listed in said table. The table shall include the following information for each lot:
 - a) lot number
 - b) invert elevation at main

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- c) drop to main
 - d) length in feet
 - e) invert elevation at property line
 - f) slope of lateral
 - g) top of curb elevation

 - h) depth below top of curb at property line
 - i) sewer station
 - j) whether a backflow preventor is required
- (8) Lot number and backflow preventor columns of the sewer lateral table shall be complete prior to approval. Remaining information will be added during the "as-built" process. Sewer laterals and backflow preventors shall also be shown on plan views (see Section 4-500).
- (9) Existing right of way, property lines, and improvements, in or adjacent to area to be improved.
- (10) New right of way, property lines, and lot numbers of area being improved.
- (11) Streets.
- a) Centerline shown by standard symbol. The centerline shall be stationed at each 500 feet (200m) with "tick marks" at 100' (30m) intervals, and B.C.'s and E.C.'s shall be stationed. Provide data tables for street centerlines.
 - b) Street names shown within each street.
 - c) That portion of the street to be paved or overlaid shall be shaded and dimensioned.
- (12) Show curb return street stationing at the beginning and end of each curb return. Provide data tables for all curbs. Curb dimensioning shall be from face of curb to centerline of street.
- (13) For major street to major street intersections and higher, show a detail at 20 scale of the diagonals of the intersection with contours at 0.2 ft. intervals or spot elevations to evaluate driveability and drainage to the satisfaction of the City Engineer. The detail shall include the area through the curb returns.
- (14) Show pedestrian ramps at each curb return and show one pedestrian ramp opposite either curb return at T-intersections. Final location of pedestrian ramps at T-intersections will be determined by the City's Traffic Section.
- (15) Sidewalks with dimensions showing width and location.
- (16) Street light locations and stations, conduits, service points and pull boxes shall be shown. Final locations of street lights will be determined by the City's Traffic Section.

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- (17) Show flowline elevations of cross gutters per CVCS 2.
 - (18) Fire hydrant locations and stations shall be shown.
 - (19) The following information shall be shown for all drainage facilities:
 - a) Size
 - b) Length
 - c) Grade
 - d) Material
 - e) Design flows and velocities and hydraulic grade lines for 50-year storm event
 - f) Centerline and storm drain stationing
 - g) Encasement and special bedding requirements.
 - h) Location by street stationing and dimensions from centerline of street.
 - i) Data tables for all storm drain pipe showing alignment data.
 - j) Details for all drainage facilities that are not to be constructed in accordance with Standard Drawings including detail plan view, cross-sections, and typical sections.
 - k) Drainage pipe gauge, or D-load may be stated in the general notes. If a general note relative to pipe gauge or D-load is used, then only segments of pipe which don't conform to the standard note need be indicated on the profile of the pipe.
 - (20) Show drainage, sewer, street tree planting and pedestrian easements. Detail location of facility within easements, width of easement and relationship of easement to nearby or adjacent lot lines.
 - (21) Sewer mains and manholes shall be shown on centerline of streets except when otherwise approved by the City Engineer. Provide data tables for all sewer pipe and number all sewer manholes.
 - (22) Water systems shown will be reviewed for conflicts with other facilities only. Water company approval of water facilities is required prior to City approval of the plans.
 - (23) Irrigation lines and facilities within the public right of way shall be shown.
 - (24) Clearly identify all City or County boundaries
 - (25) Erosion Control Plans shall include the following:
 - a) A map of the entire subdivision at a minimum scale of 1" = 200' (1 cm = 20m) showing placement of all gravel bags, desilting basins, desilting devices, and silt fences.
 - b) Temporary desilting basins in the street with a table showing the spacing for the gravel bag rows.
 - c) Cross section of the street showing the height of the gravel bags and weirs, street centerlines, curblines, right of way line and undercut or subgrade line.
 - d) Temporary desilting devices at all inlets with a separate detail for all sump conditions.
 - e) Construction entrance details.

4-102.6 Profile View

- (1) Vertical scale for profile shall be either 1" = 2' (1cm=1m) or 1" = 4' (1cm=2m) unless more than one profile break will occur per plan sheet; then a scale of 1" = 8' (1cm=5m) may be used.
- (2) Symmetrical streets may be shown with a single profile with a note clearly stating that the curb elevation is a specific distance higher or lower than the centerline grade. Knuckles, cul-de-sacs, curb inlet locations, curb returns, roadway transitions and roads in superelevation shall have separate curb profiles.. Unsymmetrical streets shall be shown by three profiles, one for centerline and one for each curb. Curb profiles shall extend a minimum of 50 feet (15m) beyond the point of symmetry.
- (3) The original ground profile at centerline shall be shown.
- (4) For street widening show profiles for the existing centerline, edge of pavement and new curbs. Engineer of work shall also submit separate drawings showing cross sections of the street widening at approximately 50 foot intervals.
- (5) Show percent grade for all straight grades, on all profiles.
- (6) Stations and elevations shall be shown at a maximum of 100 foot stations at match lines, curb returns, points on vertical curves, street intersections, and at any other location necessary for clarification of plans or construction of improvements.
- (7) Centerline, crown-line and curb lines of cul-de-sacs and knuckles shall be clearly indicated on profiles.
- (8) Vertical curves shall be clearly indicated to show:
 - a) Length of vertical curve.
 - b) Tangent grades
 - c) Stations and elevations at B.V.C., E.V.C., P.I., high/low point and at a maximum of 25 foot (8m) stationing.
- (9) Curb return profiles shall be shown separately with elevations shown for top of curb at P.C.R.'s, quarter points, and high/low points. Show the street name and percent grade of tangents at each end of curb return. Show the curb return PI elevation based on a projection of the grade along the main (through) street. Show the calculated grade from the side street PCR elevation along the tangent to this PI elevation. The grade break at the PCR shall not exceed 1%. The curb return shall be designed in a plane.
- (10) Show size, type, percent grade and length between manholes on proposed sewers. Show elevations at manhole rims, manhole flow lines and vertical curves as specified above. Show sewer profile on same sheet as sewer plan.
- (11) Culvert and storm drain profiles shall be shown and labeled. Where possible, culvert profiles shall be shown on same sheet as the culvert plan. Show existing ground line, finish ground lines, percent grade of flow line, inlet and outlet elevations of the conduits, catch basins and cleanouts and size, class or gauge of conduits.

- (12) Top of curb elevations shall be given at both ends of curb inlets, at the end of curb transitions and at centerline of the box. Street centerline stations shall be shown at the center of each curb inlet.

4-103 Processing

4-103.1 Submittal Requirements

- (1) Submittals will only be accepted in conformance with Section 5-203 of this manual
- (2) First Submittal - The first submittal package includes but is not limited to the following:
 - a) Initial plan check deposit per Section 5-100.
 - b) Executed Development Agreement (unless previously filed)
 - c) Blueline copies of Improvement Plan per Section 5-200
 - d) Hydraulic computations including dry-lane calculations.
 - e) Soils Report or Geotechnical Report (if required)-Original & 2 microfiche copies.
 - f) Design data and/or calculations for special structures.
 - g) Engineer's estimates for construction of public improvements (may be submitted with subsequent plan check). Construction cost estimates shall be calculated using the current "City of San Diego Unit Price List for Estimating Subdivision and Permit Bonds" as accepted by the City of Chula Vista.
 - h) Landscaping and Irrigation Plans.
 - i) Other items as specified by City Council in approval of associated tentative map (if any).
- (3) Subsequent Plan Check - Subsequent plan check submittals shall include but not be limited to:
 - a) 2 revised blueline copies;
 - b) Original City plan check comments;
 - c) Other information and documentation as requested.
- (4) Additional Items Required Prior to Approval:
 - a) Inspection and plan check deposits as required by the City Engineer;

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- b) Improvement Bonds. Approved bond amounts shall be based on the Engineer's approved construction cost estimate and in accordance with Section 18.16.220 of the City's Municipal Code.
 - c) Easements for off-site improvements.
 - d) Any other required deeds and/or easements.
 - e) Compliance with all outstanding conditions of approval related to improvements (if any).
 - f) Signed mylars of the improvement plan. Improvement plans must be signed by all parties except the City prior to City approval.
- (5) See Table 5-202.5 for Plan and Bonding requirements.

4-103.2 Approval

- (1) When it has been determined that the improvement plans are complete, technically correct, and in accord with the final map or parcel map, and all required signatures obtained, then the improvement plans will be approved by the City Engineer.
- (2) Approval of the improvement plans does not constitute a permit to construct. If the improvement plans are associated with a tentative or final subdivision map, the corresponding Subdivision Improvement Agreement (SIA) is the permit to construct. Otherwise, an advance permit or construction permit is required.

4-103.3 Print Package - Signed improvement plans will be released only to blueprint companies bonded with the City. Engineer of work shall be responsible to provide the City with a full size mylar set of the improvement plans (min. 3mils (0.08mm) thick) and the required number of blue line copies (see Section 5-201).

4-103.4 Partial Approval - The subdivider may receive partial approval of the improvement plans for storm drain approval only if required for an advance grading permit. Such partial approval shall be clearly shown on each sheet with a separate and permanent signature block labeled "STORM DRAIN APPROVAL ONLY".

4-103.5 Advance Permit - An advance permit to construct public improvements associated with a tentative or final subdivision map prior to approval of the SIA may be issued upon agreement between the City and the developer. In such cases, all bonds, bond riders, letters of permission, inspection deposits and print packages must be submitted and accepted by the City prior to issuance of the construction permit. A construction permit number (PC) will be issued for advance permits.

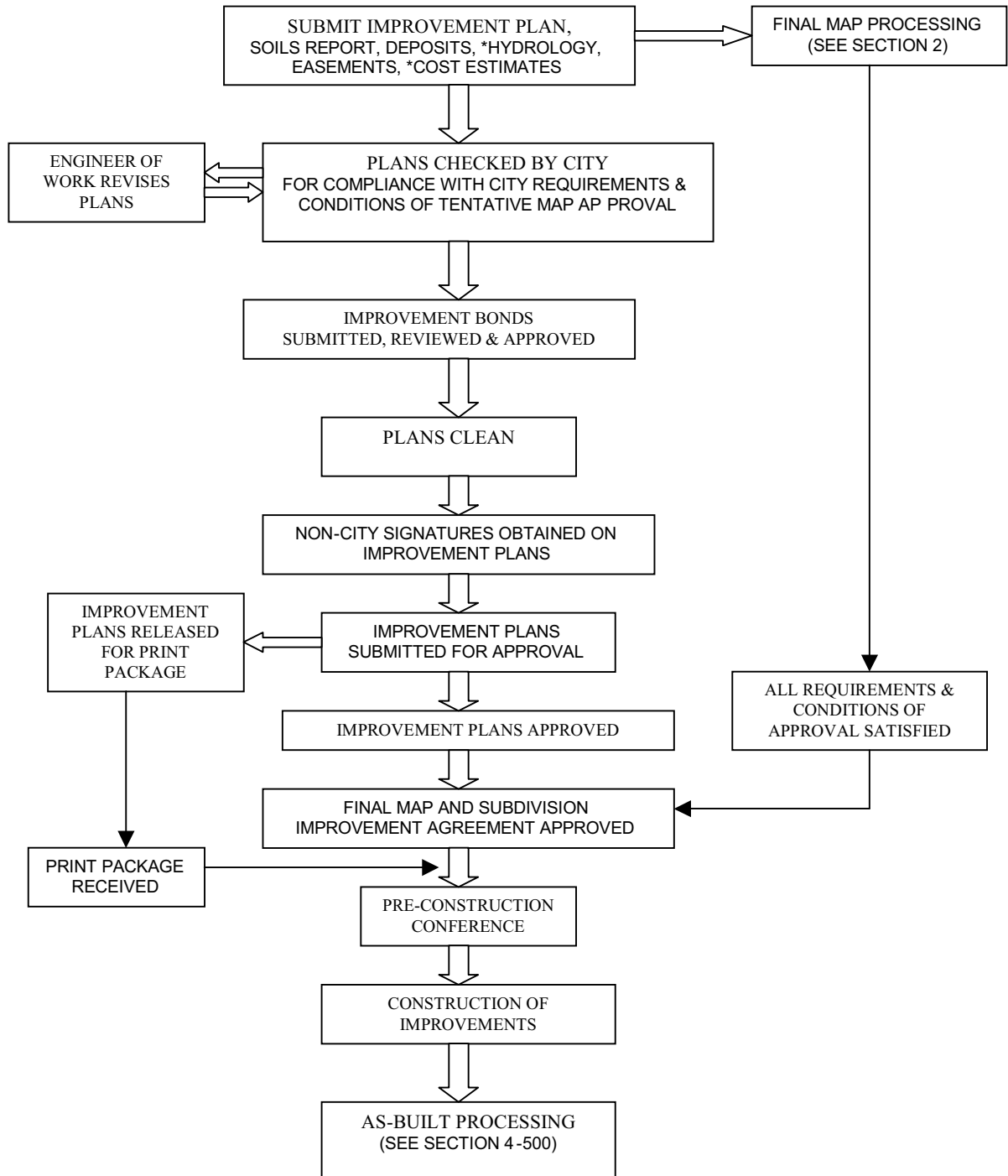
4-103.6 As-Builts - shall be processed in accordance with Section 4-500. The following shall be shown as on all as-built improvement plans:

- (1) Show sewer lateral on the plan view indicating the distance from the closest property line and complete the sewer lateral table.
- (2) Back flow preventors must be shown on both the lateral table and the plan view.

- (3) Structural street sections listed with limits indicated for each change.
- (4) Street light conduit locations, pull boxes and power sources.
- (5) Show driveways including station of driveway centerline and width of driveway.
- (6) Sewer lateral cleanouts at property lines.

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4-103.7 IMPROVEMENT PLAN FLOW CHART



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4-103.8 SAMPLE TITLE SHEET FOR IMPROVEMENT PLANS

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**4-104 IMPROVEMENT PLAN CHECKLIST
CITY OF CHULA VISTA**

FOR OFFICE USE ONLY

DE- _____

FILE: _____

SUBDIVISION _____

TRACT NO.: _____

Property Owner(s): _____

&
Address _____

Engineer/Surveyor: _____

PHONE: _____

(References are to City of Chula Vista Subdivision Manual)

ITEM		CHECK	REMARKS
4-103.1 SUBMITTAL PACKAGE – Plans, Reports, Statements & Exhibits			
a.	Initial Deposit		
	Amount \$		
b.	Development Processing Agreement executed		
c.	Blueline copies		
d.	Hydraulic Report including dry lane calc's		
e.	Soils Report – 1 copy (if required)		
f.	Design data and/or calculations for special structures		
g.	Engineers' construction cost estimate		
h.	Inspection deposit		
i.	Improvement bonds		

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ITEM	CHECK	REMARKS
j. Easements and/or deeds required		
k. Mylar (min. 3 mils thick)		
l. Print Package		
4-102 FORM AND CONTENT - General		
1. Legibly drawn on mylar, sepia or other approved media		
2. 24" x 36" (61cm x 91cm) with 1" (2.5cm) margin		
3. Lettering size – 0.10 in (2.5mm) computer; 1/8" (3mm) hand in black drawn ink		
4. Scale: 1" = 40' (1cm = 10m) minimum in both words and graphically and north arrow		
5. Engineer of Work signature and stamp on each sheet		
4-102.2 TITLE BLOCK		
1. Title – Subdivision Name, type of improvement & location		
2. Drawing Nos. – add when assigned		
3. Sheet Numbers		
4. Work Order Number – add when assigned		
5. City Approval Signature – when approved		
6. Office, Field, Traffic Initials – when approved		
7. Engineer of Work Signatures – designer, drafter, plan checker, Engineer of Work Signature and Stamp		
8. Scale		
9. Bench Mark		
10. Revisions – complete when as-built		
11. Reference Drawings		
12. Construction Record – complete when as-built		
4-102.3 TITLE SHEET		

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ITEM	CHECK	REMARKS
1. Title – subdivision name and unit number		
2. Vicinity map with north arrow and scale		
3. Key map – including street lights, sewer, storm drain, fire hydrant, streets, street names, area covered by each sheet		
4. Work to be Done & Legend		
5. Typical street cross sections		
6. Legal Description		
7. Tax Assessor's Parcel Number(s)		
8. Owners' name, address, phone & signature		
9. Developers' name, address, phone & signature (if other than owner)		
10. Construction Notes – General, Special, Water, Sewer, Fire, etc. (see Section 4-107)		
11. NPDES Certificate (if required)		
12. Engineer of Work (as -built) certificate		
13. Declaration of Responsible Charge		
14. Determine need for traffic control plan in public streets		
15. Other agency signatures		
4-102.4 PLAN & PROFILE SHEETS – General		
1. North arrow		
2. Scale (min. 1" = 100' (1cm = 10m)) shown both in words or figures and graphically		
3. Horizontal scale for plan view identical to horizontal scale for profile view		
4. Centerline and key points stationed		
5. "As-Built" certificate on each sheet		
6. Existing Conditions shown as dashed lines		

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ITEM	CHECK	REMARKS
7. All data tables complete		
4-102.5 PLAN VIEW		
1. Proposed as solid lines, existing as dashed lines		
2. Tied to street centerline		
3. City/County boundaries identified		
4. Highways, streets, roads – names, grades, widths, if private designated as such		
5. Sidewalks, pavement, curbs and gutters, street lights, driveways		
6. Easements – location, purpose, size, public or private and recording information		
7. All utilities shown and labeled and dimensioned		
8. Driveway locations shown		
9. Manholes numbered		
10. Sewer Lateral Table		
11. Existing right of way, property lines and improvements		
12. Street centerline, names, stationing, paving		
13. Curb returns with street stationing at PCR's shown		
14. Pedestrian ramps shown		
15. Sidewalks dimensioned showing width and location		
16. Street light locations and stations, pull box, conduit, wire location and size, service point location		
17. Flow line elevations of all cross gutters shown		
18. Fire hydrant locations and stations shown		
19. All drainage facilities including size, length, grade, material, etc. shown		
20. All easements shown		
21. Water systems shown		

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ITEM		CHECK	REMARKS
22.	Irrigation lines and facilities within right of way shown		
23.	City and/or County boundaries shown		
4-102.6 PROFILE VIEW			
1.	Vertical scale 1" = 2' (1cm = 1m) or 1" = 4' (1cm = 2m)		
2.	Appropriate curb profiles shown (See pg 4 -100)		
3.	Original ground profile shown		
4.	Street centerline and/or edge of pavement (if widening) shown		
5.	Percent grades shown		
6.	Stations & elevations at 100' intervals, BCs, Ecs, PCR's, street intersections, etc. shown		
7.	Centerline, crown line and curb line of cul -de-sacs and knuckles shown		
8.	Vertical curve data shown (length, tangent grades, stations, & elevations of BVC, EVC, high/low point, and at 25 foot (8m) intervals)		
9.	Separate profiles for curb returns shown		
10.	Sewer main size, type, percent grade and length between manholes, manhole stations, rim elevations, inverts shown		
11.	Culvert & storm drain profiles shown & labeled		
12.	Top of curb elevations at both ends of curb inlets, at the end of curb transitions and at the center of each inlet shown		

4-105 IMPROVEMENT PLANS TYPICAL NOTES AND CERTIFICATES

GENERAL NOTES

1. ALL UNDERGROUND UTILITIES AND LATERALS TO BE INSTALLED BEFORE CONSTRUCTION OF CURB, SIDEWALK, OR SURFACING OF STREETS.
2. SIDEWALK IS TO BE SIX INCHES THICK THROUGH ALL DRIVEWAYS.
3. ALL WORK SHALL BE COMPLETED PER THESE PLANS AND APPROVED REVISIONS. ALL CHANGES OR REVISIONS THERETO MUST BE APPROVED BY THE CITY ENGINEER, IN WRITING, PRIOR TO ANY REQUEST FOR INSPECTION.
4. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN HEREON, HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT UNDERGROUND SERVICE ALERT (PHONE 1-800-422-4133) TWO (2) WORKING DAYS IN ADVANCE OF ANY EXCAVATION FOR THE MARK OUT OF THE LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK. FOR ANY QUESTIONS REGARDING THE MARK OUT OF UNDERGROUND UTILITIES, THE CONTRACTOR SHOULD CONTACT THE RESPECTIVE UTILITY COMPANY:

STREET LIGHT OR SIGNAL LIGHT CONDUIT	CITY OF CHULA VISTA	(619) 397-6163
SEWER OR STORM DRAIN	CITY OF CHULA VISTA	
	VERIFICATION	(619) 691-5024
	NOTIFICATION	(619) 397-6000
GAS & ELECTRIC	SAN DIEGO GAS & ELECTRIC	1-800-227-2600
WATER	OTAY WATER DISTRICT	(619) 670-2222
	SWEETWATER AUTHORITY	(619) 420-1413
TELEPHONE	PACIFIC BELL	(619) 266-4683
TELEVISION	COX CABLE OF SAN DIEGO	(619) 263-9251
	ULTRONICS	(619) 476-0177

5. CITY OF CHULA VISTA INSPECTION NOTICE:
 - a. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE CITY ENGINEER 2 WORKING DAYS IN ADVANCE OF COMMENCEMENT OF WORK. PHONE: 397-6128.
 - b. THE CONTRACTOR SHALL GIVE 24 HOURS (ONE WORKING DAY) NOTICE ON CALLS FOR INSPECTION. PHONE: 397-6128.
 - c. ANY WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL AT CONTRACTOR'S EXPENSE.

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- d. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND WORK PRIOR TO THE EXCAVATION FOR INSTALLATION OF NEW UNDERGROUND WORK.
6. STREET LIGHT NOTE:
THE STREET LIGHTS AND SERVICE POINTS SHOWN HEREON ARE APPROXIMATE ONLY, SERVICE POINTS ARE SUBJECT TO REVISION BY SAN DIEGO GAS AND ELECTRIC COMPANY FINAL PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE PROPER SERVICES TO THE STREET LIGHTS SHOWN ON THE PLAN ACCORDING TO ALL THE APPLICABLE CITY OF CHULA VISTA PLANS AND SPECIFICATIONS. THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING CONDUIT AND CONDUCTORS FROM STREET LIGHTS TO APPROVED SERVICE POINTS FURNISHED BY SAN DIEGO GAS AND ELECTRIC COMPANY. CONDUIT RUNS AND CONDUCTOR SIZE FROM STREET LIGHTS TO SERVICE POINTS SHALL BE SHOWN ON THESE PLANS AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION. STREET LIGHTING CONDUIT SHALL BE 1-1/2" MIN. PVC (SCHEDULE 80). FINAL LOCATION AND SIZE OF STREET LIGHTS, CONDUIT, WIRE AND PULL BOXES SHALL BE APPROVED PRIOR TO BEGINNING OF CONSTRUCTION.
7. NEITHER THE OWNER NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS DURING CONSTRUCTION OPERATIONS.
8. LOCATION AND TYPE OF STREET TREES FOR EACH LOT TO BE DETERMINED BY THE PUBLIC WORKS DEPARTMENT - STREET OPERATIONS.
9. MAXIMUM DISTANCE BETWEEN PULL BOXES IS 190 FEET.
10. ALL UTILITIES SHALL HAVE A MINIMUM OF 90% RELATIVE COMPACTION IN ALL TRENCH BACKFILL.
11. THE CONTRACTOR SHALL BE RESPONSIBLE THAT ANY MONUMENT OR BENCH MARK WHICH IS DISTURBED OR DESTROYED SHALL BE RE-ESTABLISHED AND REPLACED BY A REGISTERED CIVIL ENGINEER WHO IS ALLOWED TO PRACTICE SURVEYING OR A LICENSED LAND SURVEYOR AND A CORNER RECORD, RECORD OF SURVEY, OR CERTIFICATE OF CORRECTION FILED AS REQUIRED BY THE LAND SURVEYOR'S ACT.
12. AS-BUILT DRAWINGS:
A SET OF BLUELINE PRINTS AND A SET OF SPECIFICATIONS SHALL BE KEPT AT ALL TIMES ON WHICH ALL CHANGES OR VARIATIONS IN THE WORK, INCLUDING ALL UTILITIES, ARE TO BE RECORDED.
13. CONTRACTOR SHALL FURNISH TO THE ENGINEER OF WORK AS-BUILT PLANS FOR ALL NEW IMPROVEMENTS SHOWN ON THESE PLANS FOR SUBMITTAL TO THE CITY ENGINEER FOR APPROVAL.

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14. THE OWNER MUST OBTAIN AN EXCAVATION PERMIT FROM THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (D.O.S.H.) PRIOR TO START OF CONSTRUCTION.
 15. ALL STORM DRAIN PIPE SHALL BE 1500 D-LOAD UNLESS OTHERWISE SHOWN ON THESE PLANS.
 16. DUST GENERATED BY CONSTRUCTION ACTIVITIES SHALL COMPLY WITH LOCAL DUST CONTROL AND UNIFORM BUILDING CODE (UBC) REQUIREMENTS WHICH INCLUDE DUST CONTROL MEASURES FOR CONSTRUCTION SITES. DUST REDUCING MEASURES SHALL INCLUDE REGULAR WATERING OF GRADED SURFACES AND RESTRICTION OF ALL CONSTRUCTION VEHICLES AND EQUIPMENT TO TRAVEL ALONG ESTABLISHED AND REGULARLY WATERED ROADWAYS.

SPECIAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL SLOPES, STREETS, UTILITIES, AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT _____ AND THE CITY INSPECTOR. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR'S OPERATIONS BY APPROPRIATE MEANS (SAND BAGS, HAY BALES, TEMPORARY DESILTING BASINS, SILT FENCES, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE TOTAL PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY OR ASSOCIATION IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
2. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
3. LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET (OR AVOIDED) BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR SHALL REPORT TO THE ENGINEER OR CITY INSPECTOR ANY DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND THE PLANS.
4. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF UNDERGROUND UTILITIES. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS.
5. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

6. CONTRACTOR AGREES: TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, THE ENGINEER AND THE CITY OF CHULA VISTA HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING THEREFROM LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER OR THE CITY OF CHULA VISTA.
7. CONTRACTOR IS RESPONSIBLE FOR HAVING TRAFFIC CONTROL PLANS APPROVED BY THE CITY ENGINEER PRIOR TO COMMENCING ANY WORK IN THE PUBLIC RIGHT OF WAY.
8. CONTRACTOR SHALL REPAIR ALL DESTROYED OR DAMAGED EXISTING SURFACE IMPROVEMENTS WITH IMPROVEMENTS EQUAL OR SUPERIOR.
9. ALL DEMOLISHED MATERIAL SHALL BE REMOVED FROM THE JOB SITE TO AN APPROVED DISPOSAL SITE.
10. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS AND THE CITY ENGINEER.
11. STOP SIGN AND STREET NAME SIGN POLES SHALL BE CONSTRUCTED CONCURRENT WITH SIDEWALK CONSTRUCTION IN ACCORDANCE WITH CVDS 14 AND 32.

SEWER NOTES

1. SEWER SHOWN ON THESE PLANS IS P.V.C. SEWER PIPE PER ASTM D-3034 TYPE PSM SDR-35, UNLESS OTHERWISE NOTED, WITH MINIMUM PIPE STIFFNESS OF 46 WHEN TESTED AT FIVE PERCENT DEFLECTION. GRAVITY P.V.C. SEWER SHALL HAVE A 3/4 INCH MAXIMUM CRUSHED ROCK BACKFILL TO ONE FOOT ABOVE THE PIPE.
2. AS AN ALTERNATE TO P.V.C. AN A.B.S COMPOSITE SEWER PIPE CONFORMING TO ASTM D-2680 WITH TYPE S.C. COUPLERS MAY BE USED IN SIZES EIGHT INCHES AND ABOVE. FOUR INCHES OR SIX INCHES SHALL BE A.B.S. SOLID WALL WITH F/DY NOT LESS THAN 150 PSI PER ASTM D- 2751.
3. SEWER CONTRACTOR SHALL MAKE CERTAIN THAT ALL MANHOLES ARE CONSTRUCTED IN EXACT LOCATION SHOWN, AND WITH THE OFFSET CONE POSITIONED AWAY FROM SURVEY MONUMENT LOCATION ADJACENT THERETO.
4. THE PIPE BEDDING SHALL BE IN ACCORDANCE WITH REGIONAL STANDARD DRAWING NO. S-4 (TYPE C).
5. THE P.V.C. AND A.B.S. PIPE CONNECTIONS TO MANHOLES SHALL HAVE MANHOLE WATER STOP GASKETS AT EACH CONNECTION TO MANHOLES. THESE WATER STOP GASKETS SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES.

6. RIM ELEVATIONS SHOWN ARE FOR INFORMATION ONLY. ALL MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE, FINAL PAVING ELEVATIONS AND CROSS SLOPES ACCORDING TO CHULA VISTA STANDARDS AND SPECIAL PROVISIONS.
7. EACH UNIT SHALL RECEIVE ONE SEWER LATERAL WHICH WILL BE SHOWN ON AS-BUILT PLANS.
8. PIPE CONNECTION TO MANHOLE (MH) SHALL COMPLY WITH REGIONAL STANDARDS.
9. EACH SEWER LATERAL SHALL RECEIVE ONE CLEANOUT INSTALLED AT PROPERTY LINE.

FIRE NOTES

1. COMMERCIAL FIRE HYDRANTS SHALL HAVE ONE (1) 4-INCH OUTLET AND TWO (2) 2 1/2 INCH OUTLETS. RESIDENTIAL FIRE HYDRANTS SHALL HAVE ONE (1) FOUR INCH OUTLET AND TWO (2) 2-1/2 INCH OUTLETS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
2. FIRE HYDRANT SPACING SHALL BE:
 - ♦ 300 FEET FOR COMMERCIAL BUILDINGS, APARTMENTS & CONDOMINIUMS.
 - ♦ 500 FEET FOR RESIDENTIAL
 - ♦ 1,000 FEET ON PARKWAYS – ALTERNATING SIDES OF STREET.
3. PROTECTION OF FIRE HYDRANTS TO BE PROVIDED AND MAINTAINED AT ALL TIMES.
4. WATER SUPPLY SHALL BE INSTALLED AND OPERABLE PRIOR TO DELIVERY OF COMBUSTIBLE MATERIALS TO THE SITE.
5. WATER SUPPLY WILL CONSIST OF FIRE HYDRANTS AS APPROVED AND INDICATED BY THE FIRE DEPARTMENT DURING PLANCHHECK. A TEMPORARY SUPPLY MAY BE ALLOWED AND WILL INCLUDE ABOVE GROUND PIPING (HIGH LINE) CONNECTED TO AN UNDERGROUND SUPPLY. ANY TEMPORARY WATER SUPPLY SOURCE IS SUBJECT TO PRIOR APPROVAL FROM THE FIRE MARSHAL.
6. ACCESS FOR FIRE APPARATUS TO BE PROVIDED AND MAINTAINED TO WITHIN 150 FEET OF ANY FINISHED OR UNFINISHED BUILDING MATERIAL OR COMBUSTIBLE CONSTRUCTION MATERIAL.
7. ACCESS TO FIRE HYDRANTS TO BE PROVIDED AND MAINTAINED AT ALL TIMES. HYDRANTS SHALL NOT BE OBSTRUCTED IN ANY MANNER. CURBS SHALL BE PAINTED RED A MINIMUM OF 15 FEET ON EACH SIDE OF HYDRANT.
8. THE FIRE FLOWS SHALL BE DETERMINED BY THE FIRE MARSHAL.
9. TEMPORARY STREET NAME SIGNS SHALL BE PROVIDED BEFORE CONSTRUCTION BEGINS AND SHALL BE THE SOLE RESPONSIBILITY OF THE DEVELOPER.

MISCELLANEOUS NOTES

TO BE INCLUDED AS SEPARATE ITEMS ON COVER SHEET)

DIG ALERT NOTICE

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES THAT DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES THAT A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. PER YOUR DIG ALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 TWO WORKING DAYS BEFORE YOU DIG.

PAVING NOTE

THE OFFICE OF THE CITY ENGINEER SHALL DESIGN ALL STRUCTURAL STREET SECTIONS BASED ON THE "R" VALUE METHOD SPECIFIED BY THE CITY ENGINEER. THE SOIL TEST SHALL BE PERFORMED BY A REGISTERED CIVIL ENGINEER WHOSE PRIMARY PROFESSIONAL ACTIVITY IS PERFORMING SUCH TESTS. TEST RESULTS SHALL BE PROVIDED TO THE CITY BY THE SUBDIVIDER IN THE NUMBER AND AT SUCH LOCATIONS AND TIMES AS DETERMINED BY THE CITY ENGINEER. WHERE HEAVY GRADING IS PROPOSED, GATHERING OF SAMPLES SHALL BE DELAYED UNTIL ROUGH SUBGRADE IS MADE. MINIMUM BASE THICKNESS ON ALL STREET CLASSIFICATIONS SHALL BE PER SECTION 3-405.3 OF THE SUBDIVISION MANUAL. BASE MATERIAL SHALL CONFORM TO CRUSHED AGGREGATE BASE, 3/4 INCH MAXIMUM, OR APPROVED ALTERNATIVE, AS SET FORTH IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SECTION 200-2.2 LATEST EDITION. ALL ASPHALT CONCRETE SURFACES SHALL BE SEAL COATED IN ACCORDANCE WITH SECTION 302-5.10 OF THE CITY OF CHULA VISTA STANDARD SPECIAL PROVISIONS.

(For alleys and alley approaches only) WHERE R VALUE TESTS ARE NOT PROVIDED OR RESULTS ARE NOT ADEQUATE FOR 5.5-INCH (14 CM) THICK CONCRETE, ALLEYS AND ALLEY TYPE DRIVEWAY APPROACHES SHALL BE CONSTRUCTED OF 8-INCH (20 CM) THICK CONCRETE REINFORCED WITH 6-INCH BY 6-INCH (15CM X 15 CM) 4/4 WOVEN WIRE MESH OR EQUIVALENT.

SPECIAL STREET LIGHT NOTE

STREET LIGHT CONSTRUCTION SHALL NOT PROCEED UNTIL SERVICE POINTS ARE KNOWN AND STREET LIGHTING CONDUIT, PULL BOXES, AND WIRE SIZES ARE SHOWN ON THESE PLANS TO THE SATISFACTION OF THE CITY ENGINEER. STREET LIGHT WIRING AND SERVICE POINTS SHALL BE ADDED TO THESE PLANS BY A CONSTRUCTION CHANGE APPROVED BY THE CITY ENGINEER.

INSTALL 30 AMP CIRCUIT BREAKER FOR UNMETERED SAFETY LIGHTING.

TRAFFIC CONTROL

IF THE NEED FOR TRAFFIC CONTROL BECOMES APPARENT AFTER THE ISSUANCE OF A PERMIT OR START OF WORK, THE INSPECTION SECTION MAY REQUIRE THE PREPARATION OF SUCH A PLAN. IF SUCH A DETERMINATION IS MADE BY THE INSPECTION SECTION, UPON NOTIFICATION OF THE SUPERINTENDENT OF THE JOB IN QUESTION, WORK IN THE RIGHTS OF WAY SHALL CEASE UNTIL SUCH TIME AS TRAFFIC CONTROL PLANS HAVE BEEN APPROVED BY TRAFFIC ENGINEERING.

TRAFFIC CONTROL STRIPING AND MARKINGS NOTE

ANY TRAFFIC SIGNS, STRIPING AND/OR PAVEMENT MARKINGS REMOVED OR OTHERWISE OBLITERATED BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION SHALL BE REPLACED BY PERMANENT TRAFFIC SIGNS, STRIPING AND/OR PAVEMENT MARKINGS, BY THE CONTRACTOR, AT CONTRACTOR'S EXPENSE, AND AS SOON AS PRACTICAL AFTER COMPLETION OF THE PERMITTED CONSTRUCTION, AND IN NO CASE LATER THAN TWO (2) WEEKS AFTER COMPLETION OF THE WORK PERMITTED. PROPER CONTROL, ALIGNMENT, LAY-OUT AND REPLACEMENT OF EXISTING TRAFFIC SIGNS, STRIPING AND/OR PAVEMENT MARKINGS SHALL LIKEWISE BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

ALL PERMANENT TRAFFIC STRIPING AND/OR PAVEMENT MARKINGS SHALL CONFORM TO THE STANDARDS FOR TRAFFIC STRIPES AND PAVEMENT MARKINGS PROVIDED IN THE CALTRANS STANDARD SPECIFICATION SECTIONS 84-1 "GENERAL" AND 84-3 "PAINTED TRAFFIC STRIPES AND PAVEMENT MARKINGS" IN THE MOST RECENTLY PUBLISHED VERSION OF THE CALTRANS STANDARD SPECIFICATIONS. PERMANENT PAVEMENT MARKERS AND THEIR APPLICATION SHALL CONFORM TO SECTION 85, "PAVEMENT MARKERS", OF THE CALTRANS STANDARD SPECIFICATIONS AND SHALL BE .70-INCH MINIMUM. NON-REFLECTIVE OR "LOW PROFILE" TYPE MARKERS SHALL NOT BE ACCEPTED WITHOUT PERMISSION, IN ADVANCE, OF THE CITY ENGINEER. PAINT FOR TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL CONFORM TO THE STATE SPECIFICATION NUMBER 8010-21C-30, RAPID DRY WATER-BORNE, WHITE OR YELLOW. GLASS BEADS SHALL CONFORM TO STATE SPECIFICATION NUMBER 8010-21C-22 TYPE II.

IN THE EVENT THAT CONSTRUCTION CAUSE REMOVAL OR OBLITERATION OF TRAFFIC SIGNS, STRIPING AND/OR PAVEMENT MARKINGS, AND THE CONSTRUCTION IS NOT COMPLETED DURING THE SAME DAY TO FINISHED SURFACE CONDITION, OR PERMANENT TRAFFIC SIGNS, STRIPING AND/OR PAVEMENT MARKERS CANNOT BE REPLACED BEFORE THE END OF EACH WORK DAY, TEMPORARY RAISED PAVEMENT MARKERS (REFLECTIVE TABS), OF THE SAME COLOR AS THE EXISTING OR PERMANENT OR DAMAGED TRAFFIC STRIPING MAY BE USED IN THE PLACE OF PERMANENT TRAFFIC MARKINGS. IN NO CASE SHALL THE TEMPORARY MARKINGS REMAIN IN PLACE OF PERMANENT TRAFFIC MARKINGS. IN NO CASE SHALL THE TEMPORARY MARKINGS REMAIN IN PLACE IN EXCESS OF TWO (2) WEEKS FROM THE COMPLETION OF PERMITTED CONSTRUCTION. SIGNS MAY BE TEMPORARILY PLACED ON TYPE III BARRICADES UNTIL CONSTRUCTION IS COMPLETED. STREETS SHALL BE TEMPORARILY OR PERMANENTLY MARKED AT THE END OF EACH WORK DAY.

TEMPORARY RAISED PAVEMENT MARKERS (TABS) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONSIST OF STIMSONITE MODEL 300 AND 301 CHIP-SEAL/TEMPORARY OVERLAY MARKERS (YELLOW OR WHITE) OR AN APPROVED EQUAL AND SHALL BE PLACED BY THE CONTRACTOR, AND MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR UNTIL SUCH TIME AS PERMANENT TRAFFIC STRIPING AND

PAVEMENT MARKINGS ARE RESTORED. UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER, ALL TEMPORARY RAISED PAVEMENT MARKERS SHALL BE REMOVED BY THE CONTRACTOR AFTER THE INSTALLATION OR REPLACEMENT OF PERMANENT STRIPING AND/OR PAVEMENT MARKINGS.

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE IN ACCORDANCE WITH THESE PLANS, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2000 EDITIONS) COMMONLY REFERRED TO AS THE "GREEN BOOK", AND 2000 SUPPLEMENT, AND SAN DIEGO REGIONAL SUPPLEMENT AMENDMENTS (2000), SAN DIEGO AREA REGIONAL STANDARD DRAWINGS (2000), STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS (JULY 1999) AND STANDARD SPECIFICATIONS (JULY 1999), STATE OF CALIFORNIA MANUAL OF TRAFFIC CONTROLS (1996), DESIGN AND CONSTRUCTION STANDARDS OF THE CITY OF CHULA VISTA (2002), AND CITY OF CHULA VISTA STANDARD SPECIAL PROVISIONS, ALL AS ADOPTED BY THE CITY OF CHULA VISTA, ARE MADE PART OF THE SPECIFICATIONS. ANY CHANGES OR REVISIONS THEREFROM SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO ANY REQUEST FOR INSPECTION.

(Note: Contact City's Land Development Section to verify date of latest edition adopted by Council prior to first submittal of plans.)

CERTIFICATES

OWNERS CERTIFICATE

IT IS AGREED THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS. IT IS FURTHER AGREED THAT THE OWNER (DEVELOPER) SHALL HAVE THE ENGINEER OF WORK MAKE SUCH CHANGES, ALTERATIONS OR ADDITIONS TO THESE PLANS WHICH THE ENGINEER OF WORK DETERMINES ARE NECESSARY AND DESIRABLE FOR THE PROPER COMPLETION OF THE IMPROVEMENTS. ALL PLAN CHANGES SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

I FURTHER AGREE TO COMMENCE WORK ON ANY IMPROVEMENTS SHOWN ON THESE PLANS WITHIN EXISTING CITY RIGHT-OF-WAY WITHIN 60 DAYS AFTER ISSUANCE OF THE CONSTRUCTION PERMIT AND TO PURSUE SUCH WORK ACTIVELY ON EVERY NORMAL WORKING DAY UNTIL COMPLETED, IRRESPECTIVE AND INDEPENDENT OF ANY OTHER WORK ASSOCIATED WITH THIS PROJECT OR UNDER MY CONTROL.

NAME: _____

ADDRESS: _____

PHONE: _____

BY: _____
DATE: _____

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CHULA VISTA AND WATER DISTRICT IS CONFINED TO REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

(FIRM NAME & ADDRESS)

BY: _____
DATE _____

(ENGINEER'S NAME, LICENSE NO. & LICENSE EXPIRATION)

AS-BUILT CERTIFICATES

ENGINEER OF WORK (ON TITLE SHEET ONLY)

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE IMPROVEMENTS SHOWN ON THIS SET OF PLANS (SHEET 1 THROUGH SHEET ____) HAVE BEEN INSTALLED AND CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH SAID PLANS, APPROPRIATE STANDARDS AND ANY DISCRETIONARY APPROVAL(S) FOR THE PROJECT.

**SUBDIVISION MANUAL
SECTION 4 CONSTRUCTION PLANS**

**Section 4-200 Page 33
Revised 7/1/2002**

SIGNED: _____
DATE: _____

PRINTED NAME: _____
P.E. NO. _____
DISCIPLINE: _____ MY
REGISTRATION EXPIRES: _____

ON EACH PLAN SHEET

"AS BUILT"	
_____ _____ (SIGNATURE)	DATE _____ _____
_____ _____ (PRINTED NAME)	P.E. NO. _____ _____
MY REGISTRATION EXPIRES: _____ _____	DISCIPLINE: _____ _____

PARTIAL APPROVAL FOR STORM DRAIN AND/OR SEWER

FOR STORM DRAIN (OR SEWER) APPROVAL ONLY

Submitted _____ Approved _____	
By: _____ _____	By: _____ _____

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**CONSTRUCTION PLANS
SECTION 4-200
GRADING PLANS**

4-200 GRADING PLANS

4-201 PURPOSE

Grading plans detail mass grading for the purpose of creating pads for building construction. These plans are generally associated with a tentative or final map for a subdivision or grading associated with private construction. All grading work shall be designed in accordance with Chula Vista Ordinance 1797, Chapter 15.04 of the Chula Vista Municipal Code.

4-202 FORM AND CONTENT

4-202.1 GENERAL

- (1) Grading plans shall be prepared by a registered civil engineer and shall be accurate engineering drawings which are technically correct and complete and shall show in detail all grading, excavation and fill required and appurtenant structures to be constructed or installed.
- (2) Design criteria for all grading must conform to the standards set forth in Section 3 of this manual, Chula Vista Municipal Code Ordinances, Chula Vista Standard Drawings and Standard Specifications, the San Diego County Regional Standard Drawings and other specifications as may be deemed appropriate by the City Engineer.
- (3) Grading plans shall be clearly and legibly drawn on 24" x 36" (61cm X 91cm)(Chula Vista Standard D sheet) mylar (min. 3mils (0.08mm) thick) using black drawing ink only.
- (4) Hand lettering shall be a minimum of 1/8" (3mm) in height. Typed or computer generated lettering shall be a minimum of 1/10" (2.5mm) in height.
- (5) Minimum scale shall be 1" = 100' (1cm = 10m).
- (6) The engineer of work shall sign and stamp each sheet of the plans including engineer's registration number and expiration date.
- (7) Each sheet shall contain a title block as described in Section 4-202.2

4-202.2 TITLE BLOCK; - Each sheet shall contain the Chula Vista standard title block which includes the information described below. Standard D sheet size mylars with the title block are available from the City.

- (1) **Title** - Subdivision designation, the type of plan (i.e. mass grading), and the location or extent of such grading.
- (2) **Drawing Numbers** - Drawing numbers will be assigned by the Engineering Division usually after the first plan check.

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- (3) **Sheet Numbers** - Sheets shall be numbered consecutively. Each sheet shall also show the total number of sheets in the plan.

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- (4) **Work Order Number** - The work order number shall be located above the title block over the block for drawing numbers. The work order will be assigned by the City and will be included in the first plan check comments.
 - (5) **City Signatures** - Each sheet of the approved plans will contain the following City signatures:
 - a) At approval, each sheet will be signed by a Senior Civil Engineer and the City Engineer. The cover sheet must allow a minimum 2" high X 5" wide (5cmX13cm) clear area above the City approval signature block to accommodate the Senior Civil Engineer's and City Engineer's stamps.
 - b) Office, Field, Traffic - These blocks will be initialed when approved by the appropriate City personnel.
 - (6) **Engineer of Work Signatures** - This block must include the initials of the people responsible for designing, drafting and checking the plans as well as the signature and registration number of the engineer of work and the date signed.
 - (7) **Scale** - Indicate the horizontal and vertical scale for each sheet.
 - (8) **Bench Mark** - Bench mark description shall be shown on each sheet of the plans. Bench marks shall conform to Section 2-302.3 of this manual
 - (9) **Revisions** - The reference number, description, approval signature and date shall be shown for each plan revision or construction change (see Section 4-500) on the each sheet affected. New mylars may not be submitted for construction changes unless otherwise approved by the City Engineer.
 - (10) **Reference Drawings** - The drawing numbers for all existing and adjacent improvements shall be shown on each sheet.
 - (11) **Construction Record** - The construction record shall include contractor's signature, inspectors' signature and date the plans are as-built (see Section 4-500).
- 4-202.3 **Title Sheet(s)**; - The title sheet for grading plans shall contain the following items:
- (1) **Title** - The subdivision name and unit number shall be placed in bold print at the top center of the title sheet.
 - (2) A vicinity map with north arrow and scale shall be indicated.
 - (3) A key map drawn to a scale of 1" = 200' (1cm=20m) shall be shown on the cover sheet which depicts the general plan of the subdivision to include roads adjacent to the subdivision, overall drainage plan, grading limits (including off-site grading); and, if applicable, the area of grading covered by each sheet. The key map shall have a north arrow and scale shown.
 - (4) Work to be done and legend. Items in the work to be done will vary with the grading and improvements to be constructed. Symbols used in legend shall conform with City of Chula Vista and San Diego Regional Standard symbols.

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- (5) A typical cross-section of each class of existing and proposed streets shall be shown. The typical section shall show roadway widths, right of way widths, side slopes, shoulders, curbs, gutters, sidewalks, medians, typical street light and fire hydrant locations, relationship of centerline grade to top of curb grade and subgrade or undercut boundary. The typical section shall also make reference to elevations as shown on the plan sheets. Typical street cross sections shall comply with City of Chula Vista Street Design Standards.
 - (6) A detail plan of a lot showing typical grading and drainage.
 - (7) Concise legal description defining the location of the work.
 - (8) Tax Assessor's parcel number(s).
 - (9) Name, address, telephone number and signature of the record owner or owners.
 - (10) Name, address and telephone number of the subdivider, if other than owner(s).
 - (11) Construction Notes - General, Special, Water, Sewer, Fire shall be added to the title sheet as necessary.
 - (12) NPDES Certificate is required on all grading plans.
 - (13) Engineer of Work Certificate. This certificate shall be complete and signed by the Engineer of Work as part of the as-built process (see Section 4-500).
 - (14) Declaration of Responsible Charge. This certificate shall be signed by the Engineer of Work prior to City approval.
 - (15) Soils Engineer certificate. This certificate shall be signed by the soils engineer of work prior to City approval.
 - (16) Other Agency Signatures. If approval is required from other agencies, the appropriate signature block for those agencies shall be added as deemed necessary by those agencies. Other agency signatures must be obtained prior to City approval of the improvement plans.
 - (17) Items that cannot fit on the cover sheet may be shown on the erosion control plan sheet.

4-202.4 Erosion Control Plan

All grading plans shall include a plan for erosion control that contains the following:

- (1) Map of the entire subdivision at 1"=200' (1cm=20m) scale minimum showing placement of sandbag rows for temporary desilting basins within the streets;
- (2) Erosion control details including:
 - a) Temporary desilting basins in the street with a table showing the spacing for the sandbag rows;

- b) Cross section of the street desilting basins showing the height of the sandbags and weirs, street centerline, curblineline, right-of-way line and undercut or subgrade line;
 - c) Temporary desilting basins at all inlets with a separate detail for sump conditions as necessary.
- (3) Erosion Control Notes as shown in Section 4-209.
 - (4) Any notes or details that could not fit on the cover sheet.

4-202.5 Plan Sheets

The plan sheets of the grading plans shall show sufficient detail of all proposed grading, excavation, fill, improvements and facilities to facilitate proper construction and inspection and at a minimum shall include the following:

- (1) North arrow.
- (2) Map Scale in words or figures and graphically.
- (3) Stationing shall generally be from left to right.
- (4) "As-Built" Certificate (to be completed through as-built process).
- (5) Existing Conditions - Existing improvements adjacent to the area of work or to be met by proposed work shall be shown by dashed lines. Any existing improvements to be relocated or removed shall be so noted on the plan sheet containing said improvements.
- (6) Grading Plans: Contours; Contour Lines - Existing and finish grade contour lines shall be shown and shall conform to the following:
 - a) Existing contour lines shall be « screened or dashed with the existing elevations enclosed in parenthesis;
 - b) Proposed contour lines shall be bold, solid lines with proposed elevations;
 - c) Contour lines shall be shown at the following intervals:

<u>Average Slope of Area</u>	<u>Contour Interval</u>
0-2%	1' (0.3m)
2-5%	2' (0.6m)
5-20%	5' (1.5m)
Over 20%	10' (3m)

- d) Contour lines shall extend for a distance of 100 feet (30.5m) beyond the subdivision boundary for plans drawn at scale of 1"=40' (1cm=30m) and a distance of 50 feet (15m) for plans at 1"=20' (1cm=15m).

-
- (7) All existing underground utilities or facilities (sewer, water, gas, drainage) shall be shown, labeled, and dimensioned on both the plan and profile. Existing underground utilities shall be extended beyond the limits of work at least 50 feet (15m).
 - (8) All proposed drainage structures or facilities required to drain the site post-grading shall be shown and if temporary so indicated. If ultimate storm drain facilities are to be constructed, include full data including plan and profile drawings unless storm drains are included on improvement plans and an advanced permit for storm drain construction will be requested. In such case, only the pipe size and length need be shown on the grading plans.
 - (9) The following information shall be shown for each lot:
 - a) pad elevation for each lot;
 - b) finished grade elevations at the intersection of side lot lines and right-of-way lines;
 - c) lengths of all lot lines;
 - d) building set back lines
 - (10) Subdivision boundary shall be fully dimensioned including bearings, distances, curve radii, angles and lengths.
 - (11) Existing survey monuments shall be shown.
 - (12) Existing right of way, property lines, contour lines and improvements, in or adjacent to area to be graded.
 - (13) New right of way, property lines, contour lines and lot numbers of area being improved.
 - (14) Streets - The following data shall be shown for all streets:
 - a) Centerline shown by standard symbol. The centerline shall be stationed at each 500 feet (200m) with "tick marks" at 100' (30m) intervals, and B.C.'s and E.C.'s shall be stationed;
 - b) Street names shown within each street;
 - c) Finished grade elevations at all street centerline intersections;
 - d) Centerline finished grade elevation at all BC's, EC's, BVC's, EVC's, and centers of cul-de-sacs.
 - (15) Show flowline elevations of cross gutters (per CVCS 2), channels and ditches to be constructed.

-
- (16) The following information shall be shown for all storm drain facilities:
- a) Size
 - b) Length
 - c) Grade
 - d) Material
- (17) If storm drain design is shown on the grading plans, the following additional information must be shown:
- a) Encasement and special bedding requirements.
 - b) Location by street stationing and dimensions from centerline of street.
 - c) Data tables for all storm drain pipe (if storm drain design on the grading plans).
 - d) Details for all drainage facilities that are not to be constructed in accordance with Standard Drawings including detail plan view, cross-sections, and typical sections.
 - e) Drainage pipe gauge, or D-load may be stated in the general notes. In such case the pipe gauge or D-load for only those segments that don't conform to the note need be shown on the pipe profile.
 - f) Profile plot of all storm drain facilities including pipes and inlets.
- (18) All slopes shall have a maximum slope ratio of 2:1. All fill slopes shall be shaded and the cut/fill line shall be shown and clearly identified.
- (19) Slopes within street tree easements shall have a maximum slope ratio of 5:1 unless otherwise approved by the City Engineer.
- (20) Show top and bottom elevations of all retaining walls appurtenant to the proposed grading. Said retaining walls shall be in accordance with San Diego Area Regional Standard Drawings, or as approved by the City Engineer. Details for non-standard walls shall be shown on the grading plans.
- (21) Limits of grading operations shall be clearly shown on each sheet and a reference to any letters of permission to grade shall be shown where appropriate.
- (22) Show existing and proposed drainage, sewer, street tree planting and pedestrian easements.
- (23) Clearly identify all City or County boundaries
- (24) Show seismic fault lines

4-202.6 Landscape Improvement Plans

(1) Landscape improvement plans in conformance with the Chula Vista Landscape Manual and Section 4-300 of this manual, shall be submitted and approved prior to issuance of a Land Development (grading) permit or other permit to grade, excluding mass grading permit.

(2) Grading plans for mass grading shall show the hydroseed components on the erosion control sheets(s)

(3) For purposes of this section, mass grading is defined as grading which does not include finished pads and/or street cuts.

4-203 PROCESSING

4-203.1 Submittal Requirements

- (1) Submittals will only be accepted in conformance with Section 5-203 of this manual
- (2) First Submittal - The first submittal package includes but is not limited to the following:
 - a) Initial plan check deposit
 - b) Executed Development Agreement (unless previously filed)
 - c) Blueline copies of Grading Plan per Section 5-201
 - d) Hydraulic calculations with a drainage basin map.
 - e) Soils Report - (preliminary and final) 2 copies, signed and stamped by a registered civil engineer whose primary expertise is soils engineering, and 2 microfiche.

The report shall present all the geological information for the area pertinent to the proposed grading. Cross sections of existing and proposed significant slopes that may be unstable must be included. The geology map must utilize a copy of the latest grading plan as a base. The scale of the map should be appropriate to permit sufficiently accurate measurements for analysis of remedial design and construction. Generally, for geologic purposes, the scale of the map and cross sections should be prepared at a minimum scale of 1 inch equals 100 feet. If the grading plan is revised, a geology map and cross section(s) should be prepared based on the new plan.

- f) Geologic and Seismic reports as required by the City Engineer.
- g) Design data and/or calculations for special structures or retaining walls.

-
- h) Engineer's estimates for grading, appurtenant structures, slope landscape & irrigation, and landscape maintenance and water costs for at least one year (may be submitted with later plan check). Cost estimates shall be calculated using the current "City of San Diego Unit Price List for Estimating Subdivision and Permit Bonds".
 - i) Notarized letter of permission to grade from adjacent property owners for all off-site grading.
 - j) A list of lot within the subdivision indicating whether they are located on areas or cut, fill, or transition between cut and fill.
 - k) Other items as specified by City Council in approval of associated tentative map (if any).
- (3) Subsequent Plan Check - Subsequent plan check submittals shall include but not be limited to:
- a) 2 revised blueline copies;
 - b) Original City plan check comments;
 - c) Other information and documentation as requested.
- (4) Additional Items Required Prior Plan Approval:
- a) Inspection and plan check deposits as required by the City Engineer;
 - b) Grading and Erosion Control Bonds. Approved bond amounts shall be based on the Engineer's approved construction cost estimate and in accordance with Section 18.16.220 of the City's Municipal Code.
 - c) Easements for off-site appurtenant structures.
 - d) Notarized letter of permission to grade from adjacent property owners for all off-site grading with copy of approved portion of plan attached and initialed.
 - e) Any other required deeds, easements, and/or agreements.
 - f) Compliance with all outstanding conditions of approval related to grading (if any).
 - g) Signed mylars of the grading, erosion control and landscape improvement plans. Plans must be signed by all parties except the City prior to City approval. Landscape improvement plans must be approved by the City prior to issuance of a land development permit, except for mass grading.
 - h) Completed Land Development Permit application form.
- (5) See Table 5-202.5 for Plan and Bond requirements.

- (1) When it has been determined that the grading plans are complete, technically correct, and in accord with the final map or parcel map, and all required signatures obtained, then the grading plans will be approved by the City Engineer.
- (2) Approval of the grading plans does not constitute a permit to grade. An advance land development permit is required.

4-203.3 **Land Development Permits;** shall be required for all grading operations, including brushing and clearing as applicable, pursuant to the Chula Vista Municipal Code (Ordinance 1797).

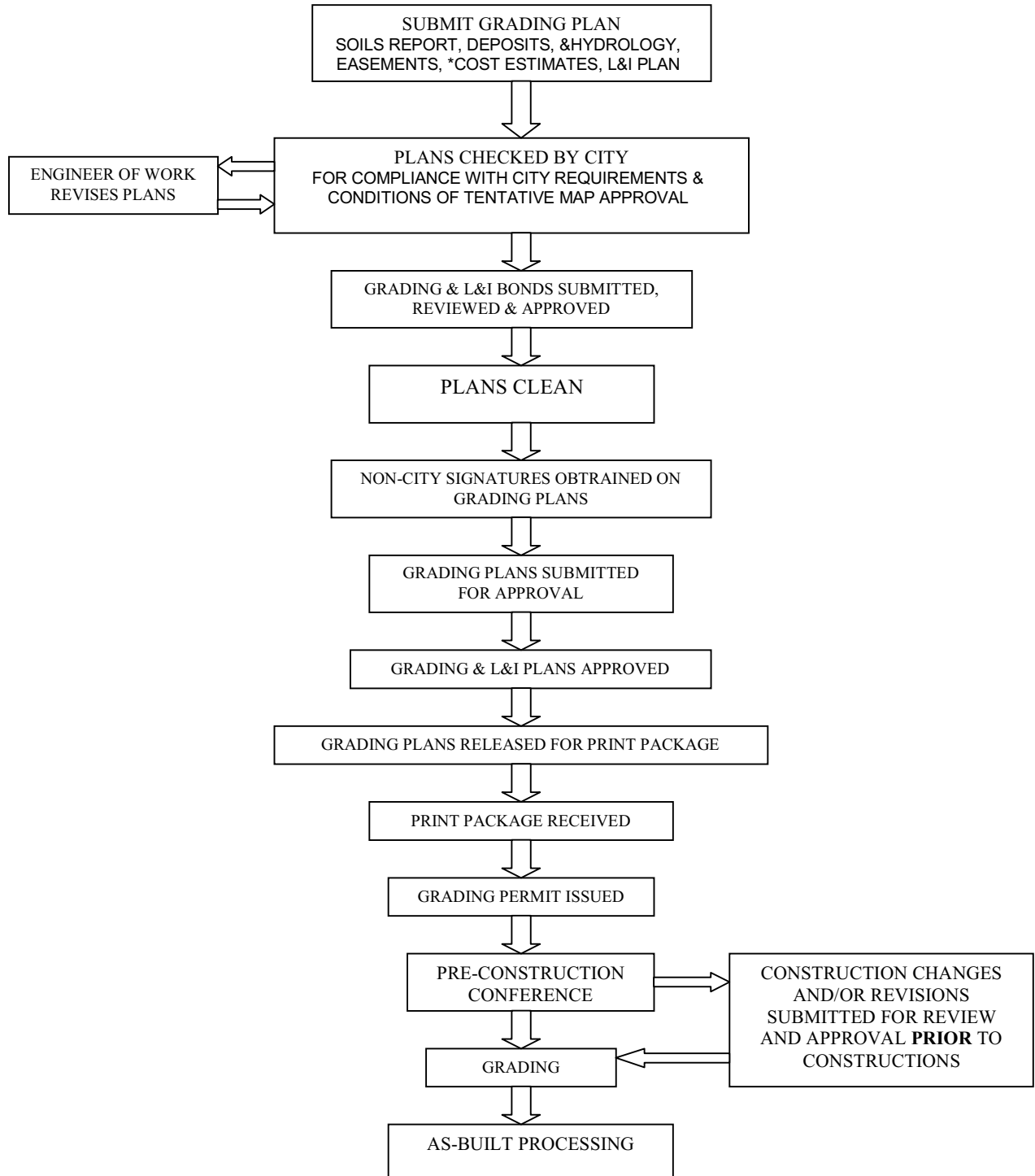
- (1) Land Development Permits shall be valid for the time period specified on the permit. If no date is specified, the permit shall be valid for 180 days after issuance of the permit. If the work cannot be completed within the specified time, the permittee may request an extension of the permit. Such a request must be submitted in writing and sufficiently in advance of the expiration of the permit to allow processing and approval of the extension prior to expiration of the permit. The City Engineer may grant one extension and said extension shall not exceed the original length of time designate on the permit.
- (2) Land Development Permits to be issued for grading associated with a proposed subdivision shall not be issued prior to approval of the tentative map or tentative parcel map for said subdivision.

4-203.4 **Print Package;** - Signed grading plans will be released only to blueprint companies bonded with the City. Engineer of work shall be responsible to provide the City with a full size mylar set of the grading plans (min. 3 mils (0.08mm) thick) and the required number of blueline copies (see Section 5-201).

4-203.5 **As-Builts** - As-built plans and reports shall be prepared in accordance with Section 15.04.140 of the Chula Vista Municipal Code.

4-204

GRADING PLAN FLOW CHART



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4-205 SAMPLE GRADING PLAN SHEETS

4-205.1 SAMPLE TITLE SHEET

4-205.2 SAMPLE EROSION CONTROL PLAN

4-206 SAMPLE LAND DEVELOPMENT PERMIT

GRADING AND/OR DRAINAGE BOND

Premium: _____

APPROVED AS TO FORM:

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City Attorney

Bond / Policy No.

(Notary Acknowledgment and Corporate Authorization Required for Each Signatory)

H:\Engineering Website\Subdivision Manual\Subdivision Manual Text\Word Version\Chapters\Section 4.doc

Name of Principal (Applicant)

By _____

By _____

Name of Surety Company

By _____

Address of Surety Company

City State Zip Code

NOTE: FOR CURRENT BOND FORMS SEE: www.ci.chula-vista.ca.us

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Revised: 7/1/2002

CITY OF CHULA VISTA

&
Address _____

PHONE: _____

ITEM		CHECK	REMARKS
4-203.1 SUBMITTAL PACKAGE – Plans, Reports, Statements & Exhibits			
1.	First Submittal		
a.	Initial Deposit		
b.	Development Processing Agreement executed		
c.	Blueline copies		
d.	Hydraulic Report including dry lane calc's		
e.	Soils Report – 2 copies		
f.	Design data and/or calculations for special structures		
g.	Engineer's grading bond estimate (including appurtenant structures)		
h.	Notarized letters of permission to grade		

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ITEM	CHECK	REMARKS
i. Landscape & Irrigation Plans		
j. List of lots on cut, fill, or transition		
k. Geologic and/or Seismic Report if required		
2. Prior to Approval		
a. Inspection deposit		
b. Approved Landscape & Irrigation Plans		
c. Grading and Landscape & Irrigation bonds		
d. Easements and/or deeds required		
e. Mylar (min. 3 mils thick)		
f. Completed Land Development Permit application form		
g. Print Package – Grading Plans		
4-202.1 FORM AND CONTENT – General		
1. Legibly drawn on mylar, sepia or other approved media		
2. 24" x 36" (61cm x 91cm) with 1" (2.5cm) margin		
3. Lettering size – 0.10 in (2.5mm) computer; 1/8" (3mm) hand in black drawing ink		
4. Scale: 1" = 40' (1cm = 10m) minimum in both words and graphically and north arrow		
5. Engineer of Work signature and stamp on each sheet		
4-202.2 TITLE BLOCK		
1. Title – Subdivision Name, type of improvement & location		
2. Drawing Nos. – add when assigned		
3. Sheet Numbers		
4. Work Order Number – add when assigned		

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SECTION 4: CONSTRUCTION PLANS

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ITEM	CHECK	REMARKS
5. City Approval Signature – when approved		
6. Office, Field, Traffic Initials – when approved		
7. Engineer of Work Signatures – designer, drafter, plan checker, Engineer of Work Signature & Stamp		
8. Scale		
9. Bench Mark		
10. Revisions – complete when as-built		
11. Reference Drawings		
12. Construction Record – complete when as-built		
4-202.3 TITLE SHEET		
1. Title – subdivision name and unit number		
2. Vicinity map with north arrow and scale		
3. Key map – including:		
a. North Arrow		
b. Scale: 1" = 200' (1cm = 20m)		
c. General Plan of subdivision showing boundary, streets and lots		
d. Adjacent Subdivisions & connecting streets shown		
e. Sheet coverage		
f. Legend identifying symbols used		
g. Drainage facilities		
h. Direction of drainage flow		
4. Work to be Done & Legend		
5. Typical street cross sections		
6. Detail showing typical lot grading		

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SECTION 4: CONSTRUCTION PLANS

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ITEM	CHECK	REMARKS
7. Legal Description		
8. Tax Assessor's Parcel Number(s)		
9. Owner's name, address, phone & signature		
10. Developers' name, address, phone & signature (if other than owner)		
11. Construction Notes – General, Special, Water, Sewer, Fire, etc (see Section 4-207)		
12. NPDES Certificate		
13. Engineer of Work (as-built) certificate		
14. Declaration of Responsible Charge		
15. Soils Engineer Certificate		
16. Other agency signatures		
4-202.4 EROSION CONTROL PLAN		
1. North arrow		
2. Scale (min. 1" = 200' (1cm = 20m)) shown both in words or figures and graphically		
3. Placement of sandbags, temporary desilt basins, etc shown		
4. Erosion control details for temporary desilt basins, etc.		
5. Erosion control notes		
4-202.5 PLAN SHEETS		
1. North Arrow		
2. Scale		
3. Centerline stationing every 500' (200m) with tick marks @ 100' (30m) intervals		
4. As Built Certificate shown on each sheet		

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ITEM	CHECK	REMARKS
5. Existing conditions shown screened or dashed		
6. Existing contour lines screened		
7. Proposed contour lines bold		
8. Contour interval as appropriate (typical 2' (0.6m))		
9. All existing underground utilities and facilities shown to 50' (15m) beyond limits of grading		
10. Proposed drainage facilities required to drain site shown		
11. Pad elevations, finish grade at right-of-way, lot line lengths and building set backs shown for each lot		
12. Subdivision boundary fully dimensioned		
13. Existing survey monuments shown		
14. Existing right-of-way, property lines, contour lines and improvements		
15. New right-of-way, property lines, contour lines and lot numbers shown		
16. Street centerline, names, stationing, width, grade, and direction of drainage flow		
17. Finished grade at centerline BC's, EC's, BVC's, EVC's, centerline intersections, and centers of cul-de-sacs shown		
18. Slopes: 2:1 max; fill slopes shaded; cut/fill line shown		
19. Flow line elevations of all cross gutters shown		
20. All drainage facilities including size, length, grade, material shown		
21. Storm drain design data shown (unless shown on improvement plans)		
22. All existing and proposed easements shown		
23. City and/or County boundaries shown		

4-209 TYPICAL GRADING PLAN NOTES

GENERAL NOTES

1. THE SOILS REPORT TITLED _____ (SOILS REPORT TITLE & DATE) _____
FROM _____ (FIRM NAME) _____ SHALL BE CONSIDERED TO BE
PART OF THIS GRADING PLAN. ALL GRADING SHALL BE DONE IN ACCORDANCE WITH
THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN SAID REPORT.
2. STORM DRAINS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. APPROVAL OF
THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIZES, LOCATIONS, AND TYPE OF
SEWER AND DRAINAGE FACILITIES, OR ANY SURFACE IMPROVEMENTS WITHIN
FUTURE STREET RIGHTS-OF-WAY SHOWN ON THESE PLANS. SEPARATE APPROVALS
AND PERMITS FOR THESE SHALL BE REQUIRED IN CONJUNCTION WITH
IMPROVEMENT PLANS.
3. WRITTEN PERMISSION SHALL BE OBTAINED FOR ANY OFF-SITE GRADING
4. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS REQUIRED TO PROTECT
ADJACENT PROPERTIES DURING GRADING OPERATIONS. ANYTHING DAMAGED OR
DESTROYED SHALL BE REPLACED OR REPAIRED TO CONDITION EXISTING PRIOR TO
GRADING.
5. THE DEVELOPER SHALL BE RESPONSIBLE THAT ANY MONUMENT OR BENCH MARK
WHICH IS DISTURBED OR DESTROYED THROUGH GRADING OPERATIONS SHALL BE
RE-ESTABLISHED AND REPLACED BY A REGISTERED CIVIL ENGINEER WHO IS
ALLOWED TO PRACTICE LAND SURVEYING, OR A LICENSED LAND SURVEYOR, AND A
CORNER RECORD, RECORD OF SURVEY, OR CERTIFICATE OF CORRECTION FILED AS
REQUIRED BY THE LAND SURVEYORS' ACT.
6. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY
DEVICES, INCLUDING SHORING, AND SHALL BE RESPONSIBLE FOR CONFORMING TO
ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND
REGULATIONS.
7. ALL FLOWS SHOWN ARE FOR 100-YEAR STORM.
8. ALL SEDIMENTATION BASINS, OUTLET PIPES AND DITCHES ARE PRIVATE UNLESS
OTHERWISE NOTED AND HAVE NOT BEEN REVIEWED FOR ADEQUACY BY THE CITY
ENGINEERING DEPARTMENT.
9. THE OWNER MUST OBTAIN AN EXCAVATION PERMIT FROM THE DIVISION OF
OCCUPATIONAL SAFETY AND HEALTH (D.O.S.H.) FOR CONSTRUCTION OF TRENCHES
OR EXCAVATIONS WHICH ARE FIVE FEET OR DEEPER INTO WHICH A PERSON IS
REQUIRED TO DESCEND. SAID PERMIT IS REQUIRED PRIOR TO ISSUANCE OF A
GRADING PERMIT BY THE CITY OF CHULA VISTA.
10. GRADING EQUIPMENT SHALL NOT USE OR BLOCK TRAFFIC LANES DURING GRADING
ACTIVITY, TRUCK OPERATIONS IN AND OUT OF CONSTRUCTION AND STAGING AREAS
SHALL BE CONTROLLED AS REQUIRED BY THE CITY. TRUCK AND EQUIPMENT
ROUTES IN AND OUT OF THE SITE, SHALL BE APPROVED BY THE CITY PRIOR TO

START OF WORK. AT THE END OF THE WORKING DAY, STREETS SHALL BE CLEANED OF DIRT AND CONSTRUCTION DEBRIS TO THE SATISFACTION OF THE CITY INSPECTOR AND THE MITIGATION MONITOR.

11. DUST GENERATED BY CONSTRUCTION ACTIVITIES SHALL COMPLY WITH LOCAL DUST CONTROL, ALL REQUIREMENTS OF ALL MITIGATION MONITORING PROGRAMS, AND UNIFORM BUILDING CODE (UBC) REQUIREMENTS, WHICH INCLUDE DUST CONTROL MEASURES FOR CONSTRUCTION SITES. DUST REDUCING MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, REGULAR WATERING OF GRADED SURFACES AND RESTRICTION OF ALL CONSTRUCTION VEHICLES AND EQUIPMENT TO TRAVEL ALONG ESTABLISHED AND REGULARLY WATERED ROADWAYS AT SPECIFIED SPEEDS.

NOTIFICATIONS

1. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORD, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN HEREON, HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT UNDERGROUND SERVICE ALERT (PHONE 1-800-422-4133) TWO (2) WORKING DAYS IN ADVANCE OF ANY EXCAVATION FOR THE MARK OUT OF THE LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK.

FOR ANY QUESTIONS REGARDING THE MARK OUT OF UNDERGROUND UTILITIES, THE CONTRACTOR SHOULD CONTACT THE RESPECTIVE UTILITY COMPANY:

STREET LIGHT OR SIGNAL LIGHT CONDUIT	CITY OF CHULA VISTA	(619) 397-6163
SEWER OR STORM DRAIN	CITY OF CHULA VISTA	
	VERIFICATION	(619) 691-5024
	NOTIFICATION	(619) 397-6000
GAS & ELECTRIC	SAN DIEGO GAS & ELECTRIC CO.	1-800-227-2600
		(619) 230-7800
WATER	OTAY WATER DISTRICT	(619) 670-2222
	SWEETWATER AUTHORITY	(619) 420-1413
TELEPHONE	PACIFIC BELL	(619) 266-4683
TELEVISION	COX CABLE OF SAN DIEGO	(619) 263-9251/ (619) 266-5597
	ULTRONICS	(619) 476-0177

2. CONTRACTOR SHALL NOTIFY THE CITY ENGINEER'S OFFICE (PHONE 619-397-6128) AND THE MITIGATION MONITOR AT THE PLANNING DIVISION (PHONE 619- 691-5101) 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
3. THE CONTRACTOR SHALL GIVE 24 HOURS (ONE WORKING DAY) NOTICE ON CALLS FOR INSPECTION. PHONE: 397-6128.
4. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL AT CONTRACTOR'S EXPENSE.

SPECIAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE QUANTITIES SHOWN HEREON AND BALANCING THE EARTHWORK ONSITE. IF DISCREPANCIES ARISE, THE ENGINEER OF WORK SHALL PROVIDE AREAS OF ADJUSTMENT TO THE CONTRACTOR. WHERE TRENCHES ARE WITHIN EASEMENTS, STREETS, OR 10' OF ANY BUILDING, SOILS REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATE THAT THE TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL SLOPES ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER AT (ENGINEER OF WORK PHONE NO.).
3. THE PALEONTOLOGICAL MONITOR SHALL BE PRESENT DURING THE GRADING OF THE PLIOCENE SAN DIEGO FORMATION (TSD) ON THE SITE. THE MONITOR SHALL HAVE THE AUTHORITY TO TEMPORARILY DIRECT, DIVERT, OR HALT GRADING TO ALLOW RECOVERY OF FOSSIL REMAINS.
4. THE CONTRACTOR SHALL UNCOVER ALL UTILITIES THAT MAYBE JOINED, CROSSED, OR PARALLELED TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATION PRIOR TO ANY CONSTRUCTION. ANY CONFLICT OR DISCREPANCY SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION. OTHERWISE THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR ANY ADDITIONAL CONSTRUCTION OR RELOCATION COSTS.
5. ALL FILL AREAS, WHICH ARE FENCED, SHALL REMAIN FENCED. TEMPORARY AND/OR FINAL FENCING SHALL BE PROVIDED AS SHOWN ON THE PLANS.
6. ALL APPROVED GEOTEXTILE ENGINEERING FABRIC SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
7. A 6" MINIMUM THICKNESS BEDDING BLANKET UNDERLAIN BY A LAYER OF GEOTEXTILE (MIRAFI 700X OR EQUIVALENT) SHALL BE CONSTRUCTED BENEATH ALL RIP RAP. THE BEDDING BLANKET SHALL MEET THE FOLLOWING SPECIFICATIONS:
 - a. FRACTION PASSING THE NO. 3/8 IN. STANDARD SIEVE SHALL BE 100% BY WEIGHT.

-
- b. ANY SOURCE OF ON-SITE MATERIAL DEEMED SUITABLE BY THE SOILS ENGINEER.
 - 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING, RELOCATING, AND OR REMOVING EXISTING UTILITIES.
 - 9. THE CONTRACTOR SHALL REPLACE ALL DESTROYED OR DAMAGED SURFACE IMPROVEMENTS WITH IMPROVEMENTS EQUAL OR SUPERIOR.
 - 10. ALL CONTOURS AND ELEVATIONS SHOWN HEREON REPRESENT FINISH GRADE. CONTRACTOR SHALL MAKE THE APPROPRIATE ALLOWANCES FOR PAVEMENT SUBGRADE, PAD UNDERCUT, AND UTILITY TRENCHING.
 - 11. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS AND THE CITY OF CHULA VISTA.

GRADING NOTES

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE APPROVED PLANS AND APPROVED REVISIONS. ANY CHANGES OR REVISIONS THERETO SHALL BE APPROVED BY THE CITY ENGINEER AND MITIGATION MONITOR PRIOR TO ANY REQUEST FOR INSPECTION.
- 2. ALL GRADING SHALL BE INSPECTED AND TESTED BY OR UNDER THE DIRECTION OF A QUALIFIED SOILS ENGINEER. THE SOILS ENGINEER SHALL: INSPECT THE EXCAVATION, AND SHALL OBSERVE AND TEST THE PLACEMENT, AND COMPACTION OF FILL AND BACKFILL AND COMPACTION OF TRENCHES; SUBMIT GEOTECHNICAL OR SOILS REPORTS AS REQUIRED AND DETERMINE THE SUITABILITY OF ANY FILL MATERIAL UPON COMPLETION OF GRADING OPERATIONS. THE SOILS ENGINEER SHALL STATE THAT OBSERVATIONS AND TESTS WERE MADE BY, OR UNDER DIRECTION OF THE SOILS ENGINEER, AND THAT EMBANKMENTS AND EXCAVATIONS WERE CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL ASPECTS OF THE APPROVED GRADING PLANS, ANY APPROVED REVISIONS THERETO, SUBJECT LAND DEVELOPMENT PERMIT AND ORDINANCE NO. 1797 AS AMENDED, AND THAT ALL EMBANKMENTS AND EXCAVATIONS ARE ACCEPTABLE FOR THEIR INTENDED USE.
- 3. THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER. CONTRACTOR SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE, AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED TO THE SATISFACTION OF THE CITY ENGINEER AND THE MITIGATION MONITOR.
- 4. ALL AREAS TO BE FILLED SHALL BE PREPARED PRIOR TO FILLING, AND FILL SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN THE SOILS REPORT. ALL VEGETABLE MATTER AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED, BY THE CONTRACTOR, FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED. LOOSE FILL AND UNSUITABLE SOILS SHALL BE REMOVED TO SUITABLE FIRM

NATURAL GROUND. THE EXPOSED SOILS SHALL BE SCARIFIED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND THEN COMPACTED TO A MINIMUM OF 90% OF ASTM-D1557. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE, SPREAD, WATER AND COMPACT THE FILL IN STRICT ACCORDANCE WITH THE SPECIFICATIONS.

5. CUT AND FILL SLOPES SHALL BE CUT AND TRIMMED TO THE FINISHED GRADE TO PRODUCE SMOOTH SURFACES AND UNIFORM CROSS SECTIONS. THE SLOPES OF EXCAVATIONS AND EMBANKMENTS SHALL BE SHAPED, TRIMMED, AND PLANTED IN ACCORDANCE WITH THE PLANTING NOTES AND AS DIRECTED BY THE ENGINEER OF WORK, AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS AND OTHER WASTE MATERIALS EXPOSED ON THE EXCAVATION OR EMBANKMENT SLOPES WHICH ARE LIABLE TO BECOME LOOSENEED, SHALL BE REMOVED AND DISPOSED OF. THE TOE AND TOP OF ALL SLOPES SHALL BE ROUNDED IN ACCORDANCE WITH ORDINANCE NO. 1797, THESE GRADING PLANS, AND THE STANDARD DRAWINGS CVDS 26 AND 27. SLOPE SETBACKS AND GRADES SHALL CONFORM TO CVDS 25.
6. IF THERE ARE EROSION SCARS ON EXISTING SLOPES WHICH OTHERWISE WOULD NOT BE ELIMINATED BY THE PROPOSED GRADING, THESE SCARS ARE TO BE ELIMINATED BY TRIMMING, FINE GRADING AND PLANTING. IF THE SCARS ARE IN AREAS OF NATIVE VEGETATION, THE REPAIRS SHOULD BE PERFORMED WITH AN EFFORT TO AVOID OR MINIMIZE IMPACTS TO NATIVE VEGETATION. ALL SUCH REPAIRS IN AREAS OF NATIVE VEGETATION SHALL BE REVIEWED AND APPROVED BY THE CITY'S MITIGATION MONITORING COORDINATOR PRIOR TO THE BEGINNING OF THE REPAIR WORK.
7. ALL TREES, BRUSH, GRASS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE COLLECTED, PILED OR OTHERWISE DISPOSED OF OFF THE SITE BY THE CONTRACTOR SO AS TO LEAVE THE AREAS THAT HAVE BEEN CLEARED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. APPROVAL OF LOCATIONS FOR DEBRIS FILL SHALL BE OBTAINED FROM THE SOILS ENGINEER PRIOR TO THE DISPOSAL OF ANY SUCH MATERIAL.
8. SUBDRAIN LOCATIONS SHOWN ARE APPROXIMATE AND ARE RECOMMENDED FOR ALL SIGNIFICANT FILL CANYONS. THE ACTUAL LOCATION AND EXTENT OF SUBDRAINS SHALL BE DETERMINED BY THE GEOTECHNICAL CONSULTANT AT THE TIME OF CONSTRUCTION.
9. BY REFERENCE HERE, THE REPORT _____ (TITLE OF GEOTECHNICAL REPORT) _____ PREPARED BY _____ (GEOTECHNICAL CONSULTANT) ON _____ (DATE) _____ IS INCLUDED AS PART OF THESE PLANS.
10. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND SHOWN FOR GENERAL INFORMATION ONLY.
11. WHERE GRADING DOES NOT OCCUR, ALL EXISTING PLANT MATERIAL IS TO BE PROTECTED IN PLACE. NO CONSTRUCTION EQUIPMENT WILL BE ALLOWED TO TRAVEL THROUGH AND DAMAGE ANY OF THESE AREAS. ALL AREAS TO BE RETAINED IN A NATURAL CONDITION SHALL BE FENCED UNDER THE DIRECTION OF THE

PROJECT BIOLOGIST. CONTRACTOR WILL BE RESPONSIBLE TO REPAIR ANY AND ALL DAMAGE/IMPACTS TO THESE AREAS.

12. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER OF WORK AS-BUILT PLANS FOR ALL NEW IMPROVEMENTS AND GRADING SHOWN ON THESE PLANS FOR SUBMITTAL TO THE CITY ENGINEER FOR APPROVAL IN ACCORDANCE WITH SECTION 15.04.140 OF THE CHULA VISTA MUNICIPAL CODE.
13. IN THE CASE OF CONFLICTS, THE REQUIREMENTS OF THE EARTHWORK, SPECIFICATIONS PREPARED FOR THE PROJECT BY THE SOILS ENGINEER SHALL GOVERN THE REQUIREMENTS OF THIS PLAN AND THESE NOTES AND THESE PLANS SHALL BE REVISED ACCORDINGLY.

LANDSCAPING NOTES

1. ALL SLOPES SHALL BE PLANTED AND IRRIGATED IN ACCORDANCE WITH PLANS APPROVED BY THE CITY OF CHULA VISTA DIRECTOR OF PARKS AND RECREATION AND CITY ENGINEER. PLANS SHALL CONFORM TO THE CITY OF CHULA VISTA LANDSCAPE MANUAL AND ORDINANCE NO. 1797, BOTH AS AMENDED.
2. FINISH GRADING AND PLANTING SHALL BE ACCOMPLISHED ON ALL SLOPES PRIOR TO OCTOBER 1 OR IMMEDIATELY UPON COMPLETION OF ANY SLOPES GRADED BETWEEN OCTOBER 1 AND APRIL 1. PADS OR OTHER RELATIVELY LEVEL AREAS SHALL BE PLANTED AS DIRECTED BY THE CITY'S DIRECTORS OF PLANNING AND BUILDING DEPARTMENT AND/OR OFFICE OF BUILDING AND PARK CONSTRUCTION.
3. PRIOR TO GRADING, CONTRACTOR SHALL FIELD VERIFY EXISTING IRRIGATION SYSTEMS TO DETERMINE WHICH ARE OPERABLE. UNLESS OTHERWISE NOTED ON THESE PLANS, ALL EXISTING IRRIGATION SYSTEMS ARE TO BE PROTECTED IN PLACE AND REMAIN OPERABLE. CONTACT THE PLANNING AND BUILDING DEPARTMENT AND/OR OFFICE OF BUILDING AND PARK CONSTRUCTION (LANDSCAPING COORDINATION NAME AND PHONE NO., PER SEC. 5-300).

EROSION CONTROL NOTES

PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, TEMPORARY EROSION CONTROL SHALL BE PREFORMED AND INSTALLED BY THE CONTRACTOR AS INDICATED BELOW:

1. THE EROSION CONTROL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSPECTION AND MODIFICATION OF THE EROSION CONTROL DEVICES DURING THE RAINY SEASON. THE CONTRACTOR, PERMITTEE OR OWNER SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF THE EROSION CONTROL DEVICES DURING THE RAINY SEASON. IN THE EVENT OF FAILURE OR REFUSAL TO PROPERLY MAINTAIN SAID DEVICES, THE CITY ENGINEER OR MITIGATION MONITOR MAY CAUSE EMERGENCY MAINTENANCE WORK TO BE DONE TO PROTECT ADJACENT PRIVATE AND PUBLIC PROPERTY, THE COST (INCLUDING AN INITIAL MOBILIZATION AMOUNT) OF WHICH SHALL BE CHARGED TO THE OWNER.
2. SEDIMENTATION BASINS MAY NOT BE REMOVED OR MADE INOPERATIVE WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER AND MITIGATION MONITOR.

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3. TEMPORARY EROSION CONTROL DEVICES, WHICH INTERFERE WITH THE WORK, SHALL BE RELOCATED OR MODIFIED AS THE WORK PROGRESSES, AS RECOMMENDED BY THE ENGINEER OF WORK AND AS APPROVED BY THE CITY ENGINEER AND MITIGATION MONITOR.
 4. ALL REMOVABLE PROTECTION DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT. AFTER EACH RAINSTORM EXCEEDING 1/4 INCH IN A 12-HOUR PERIOD, SILT AND DEBRIS SHALL BE REMOVED FROM CHECK DAMS AND DESILTING BASINS AND BASINS SHALL BE PUMPED DRY AS DEEMED NECESSARY BY THE CITY ENGINEER AND MITIGATION MONITOR.
 5. EFFECTIVE PLANTING SHALL BE INSTALLED, FULLY GERMINATED, AND SHALL EFFECTIVELY COVER THE REQUIRED SLOPES PRIOR TO FINAL APPROVAL. THE PLANTING MIX SHALL BE APPROVED, BY THE DIRECTOR OF PLANNING AND BUILDING AND/OR THE OFFICE OF BUILDING AND PARK CONSTRUCTION, PRIOR TO INSTALLATION. SPRINKLER SYSTEMS ARE REQUIRED ON ALL SLOPES OVER FIVE FEET IN HEIGHT.
 6. A 12 INCH HIGH BY 3 FEET WIDE BERM SHALL BE MAINTAINED ALONG THE TOP OF THE SLOPE OF THOSE FILLS ON WHICH GRADING IS NOT IN PROGRESS. CONCENTRATED WATER SHALL NOT BE CARRIED CLOSER THAN 10 FEET FROM THE TOP OF SLOPES.
 7. SILT BASINS, TRAPS, OR SANDBAGS SHALL BE PROVIDED AT EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM.
 8. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPE, THE CONTRACTOR SHALL INSURE THAT WATER DRAINING TO THE SUMPS IS DIRECTED INTO THE INLET, AND THAT A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS, THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. SANDBAGS OR DIKES.
 9. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREETS DUE TO CONSTRUCTION ACTIVITY.
 10. THE CONTRACTOR SHALL CHECK AND MAINTAIN LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
 11. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH RAINFALL EXCEEDING 1/4" IN A 12-HOUR PERIOD AND WHEN SILT REACHES A DEPTH OF 1.0'
 12. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
 13. DEVICES SHOWN ON THESE PLANS SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE PUBLIC WORKS INSPECTOR AND MITIGATION MONITOR.

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14. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER AND MITIGATION MONITOR AFTER EACH RAINFALL WHICH PRODUCES RUNOFF.
 15. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE CITY ENGINEER OR MITIGATION MONITOR DUE TO INCOMPLETE GRADING OPERATIONS OR UNFORSEEN CIRCUMSTANCE WHICH MAY ARISE.
 16. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
 17. ALL EROSION CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREIN.
 18. GRADED AREA AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY.
 19. IN CASE EMERGENCY WORK IS REQUIRED, CONTACT _____ (DEVELOPER'S NAME & PHONE NO.) _____.
 20. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT MAY RESULT FROM GRADING OPERATIONS BY APPROPRIATE MEANS (SANDBAGS, HAY BALES, TEMPORARY DESILTING BASINS, SILT FENCES, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE TOTAL PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY OWNER.

MISCELLANEOUS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STATEMENT

(FOR PROJECTS SUBJECT TO NPDES GENERAL PERMIT FOR STORM
WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES)

DEVELOPMENT OF THIS PROJECT SHALL COMPLY WITH ALL REQUIREMENTS OF STATE WATER RESOURCES CONTROL BOARD (SWRCB) (NPDES GENERAL PERMIT NO. CAS000002, WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY. IN ACCORDANCE WITH SAID PERMIT, A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND A MONITORING PROGRAM PLAN SHALL BE DEVELOPED AND IMPLEMENTED CONCURRENT WITH THE COMMENCEMENT OF GRADING ACTIVITIES. THE SWPPP SHALL SPECIFY BOTH CONSTRUCTION AND POST-CONSTRUCTION STRUCTURAL AND NON-STRUCTURAL POLLUTION PREVENTION MEASURES. THE SWPPP SHALL ALSO ADDRESS OPERATION AND MAINTENANCE OF POST-CONSTRUCTION POLLUTION PREVENTIONS MEASURES, INCLUDING SHORT-TERM AND LONG-TERM FUNDING SOURCES AND THE PARTY OR PARTIES THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION OF SAID MEASURES.

A COMPLETE AND ACCURATE NOTICE-OF-INTENT (NOI) WILL BE FILED WITH THE SWRCB. A COPY OF THE ACKNOWLEDGMENT FROM THE SWRCB THAT A NOI HAS BEEN RECEIVED FOR THIS PROJECT SHALL BE FILED WITH THE CITY OF CHULA VISTA WHEN RECEIVED; FURTHER, A COPY OF THE COMPLETED NOI FROM THE SWRCB SHOWING THE PERMIT NUMBER FOR THIS PROJECT SHALL BE FILED WITH THE CITY OF CHULA VISTA WHEN RECEIVED.

IN ADDITION, THE UNDERSIGNED AND SUBSEQUENT OWNER(S) OF ANY PORTION OF THE PROPERTY COVERED BY THIS GRADING PERMIT NO. _____ SHALL COMPLY WITH SPECIAL PROVISIONS REGARDING THE REVOCATION OR CANCELLATION OF NPDES GENERAL PERMIT COVERAGE, AS SET FORTH IN SWRCB ORDER NO. CAS000002, AND ANY SUBSEQUENT AMENDMENTS THERETO AND REISSUANCES THEREOF.

OWNER OF LAND

SIGNATURE OF LAND OWNER, CORPORATE OFFICE, GENERAL
DATE
PARTNER, OR PROPRIETOR

PRINTED NAME OF ABOVE PERSON

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TITLE

PERMIT IDENTIFICATION NUMBER

OWNERS' CERTIFICATE

IT IS AGREED THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS. IT IS FURTHER AGREED THAT THE OWNER (DEVELOPER) SHALL HAVE THE ENGINEER OF WORK MAKE SUCH CHANGES, ALTERATIONS OR ADDITIONS TO THESE PLANS, WHICH THE ENGINEER OF WORK DETERMINES ARE NECESSARY AND DESIRABLE FOR THE PROPER COMPLETION OF THE GRADING. ALL PLAN CHANGES SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

I FURTHER AGREE TO COMMENCE WORK ON ANY IMPROVEMENTS SHOWN ON THESE PLANS WITHIN EXISTING CITY RIGHT-OF-WAY WITHIN 60 DAYS AFTER ISSUANCE OF THE GRADING PERMIT AND TO PURSUE SUCH WORK ACTIVELY ON EVERY NORMAL WORKING DAY UNTIL COMPLETED, IRRESPECTIVE AND INDEPENDENT OF ANY OTHER WORK ASSOCIATED WITH THIS PROJECT OR UNDER MY CONTROL.

NAME: (DEVELOPER FIRM NAME)

ADDRESS:

TELEPHONE:

BY: _____
DATE _____

SOILS ENGINEER'S CERTIFICATE

I, _____ (NAME) _____, A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA, PRINCIPALLY DOING BUSINESS IN THE FIELD OF APPLIED SOIL MECHANICS, HEREBY VERIFY THAT A SAMPLING AND STUDY OF THE SOIL CONDITIONS PREVALENT WITHIN THIS SITE WAS MADE BY ME OR UNDER MY DIRECTION BETWEEN THE DATES OF _____ AND _____.

ONE COMPLETE COPY OF THE SOILS REPORT COMPILED FROM THIS STUDY, WITH MY RECOMMENDATIONS, HAS BEEN SUBMITTED TO THE OFFICE OF THE CITY ENGINEER.

THESE GRADING PLANS HAVE BEEN REVIEWED BY ME OR UNDER MY DIRECTION AND CONFORM TO THE RECOMMENDATIONS MADE IN THE SOILS REPORT MENTIONED ABOVE.

SIGNED: _____
DATE _____

RCE NO. _____ EXPIRATION DATE _____

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

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I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CHULA VISTA IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

(NAME OF ENGINEER)

DATE

(RCE NO.)

WORK TO BE DONE

THE WORK TO BE DONE CONSISTS OF THE ITEMS INDICATED UNDER THE "LEGEND" SHOWN BELOW, AND IS TO BE DONE IN ACCORDANCE WITH THESE PLANS AND THE FOLLOWING LIST OR PRINTED MATERIALS AS CURRENTLY ADOPTED BY THE CHULA VISTA CITY COUNCIL INCLUDING THE FOLLOWING:

1. Standard specifications for Public Works Construction ("Greenbook") and Supplements Amendments thereto:
2. San Diego Area Regional Standard Drawings
3. City of Chula Vista Standard Special Provisions (to the Greenbook)
4. Design and Construction Standards of the City of Chula Vista
5. State of California Department of Transportation Standard Plans
6. Standard Specifications, State of California Manual of Traffic Controls

All references are to be made part of these plans. Any changes or revisions therefrom, shall be approved by the City Engineer, or his designee, prior to any request for inspection.

LEGEND

- | | | |
|----|---------------------------|-------------|
| 1. | (DESCRIPTION)
(Symbol) | (Ref. Dwg.) |
|----|---------------------------|-------------|

AS-BUILTS

THE CONTRACTOR SHALL FURNISH TO THE ENGINEER OF WORK, AS-BUILT PLANS FOR ALL NEW IMPROVEMENTS AND GRADING SHOWN ON THESE PLANS FOR SUBMITTAL TO THE CITY ENGINEER FOR APPROVAL IN ACCORDANCE WITH SECTION 15.04.140 OF THE CHULA VISTA MUNICIPAL CODE.

PRECONSTRUCTION CONFERENCE

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THE CONTRACTOR SHALL NOT BEGIN ANY WORK ON THIS PROJECT UNTIL A PRECONSTRUCTION CONFERENCE IS HELD WITH THE ENGINEER OF WORK, THE SOILS ENGINEER, ENGINEERING GEOLOGIST, A QUALIFIED PALEONTOLOGICAL MONITOR, A BOTANIST, THE DEVELOPER, THE CITY INCLUDING THE MITIGATION MONITOR AND _____ (WATER COMPANY) _____.

ENGINEER OF WORK CERTIFICATE

I HEREBY CERTIFY THAT IN MY PROFESSIONAL OPINION ALL WORK INCORPORATED IN THE GRADING PLANS SHEET 1 THROUGH SHEET ____ AND AUTHORIZED UNDER GRADING PERMIT NO. ____ HAS BEEN CONSTRUCTED TO THE LINES AND GRADES IN SUBSTANTIAL CONFORMANCE WITH SAID PLANS AND ANY APPROVED REVISIONS.

SIGNED: _____
_____ DATE _____

PRINTED NAME: _____
_____ P.E. NO. _____

DISCIPLINE: _____
REGISTRATION EXPIRES _____

"DIG ALERT NOTICE"

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES THAT DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

As-Built Certificate: To be placed on each plan sheet

"AS -BUILT"	
_____ _____ (Signature)	DATE _____ _____
_____ _____ (Printed Name)	P.E. No. _____ _____
MY REGISTRATION EXPIRES: _____ _____	DISCIPLINE: _____ _____

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CONSTRUCTION PLANS
SECTION 4-300
LANDSCAPE IMPROVEMENT PLANS

4-300 LANDSCAPE IMPROVEMENT PLANS

4-301 Purpose

Landscape improvement plans detail construction of landscape and irrigation facilities within public and private open space, right of way and park sites. These plans are generally associated with a tentative or final map for a major subdivision or with an application for a building permit for private construction. All landscaping and irrigation shall be designed in accordance with Titles 17 and 19 of the Chula Vista Municipal Code and the City of Chula Vista Landscape Manual.

4-302 Applicability

4-302.1 All building permit applications for industrial, commercial, civic, or multi-family residential buildings or structures; residential developments with common areas; development of parklands, recreation facilities, maintenance districts, street medians; and all discretionary permit applications for the aforementioned types of land uses regulated in any manner by the provisions of Titles 17 and 19 of the Municipal Code shall be subject to review and approval in accordance with the provisions of the City Landscape Manual. Interior remodels or minor modifications to building exteriors constituting a valuation of less than \$20,000 are not subject to the provisions of the City Landscape Manual.

4-302.2 Applicants for the following types of projects shall submit and obtain approval of Landscape Plans prior to the issuance of the applicable permit or other discretionary approval:

- (1) Multiple family (CVMC 19.14.485)
- (2) Commercial (CVMC 19.14.485)
- (3) Industrial (CVMC 19.14.485)
- (4) Planned Unit Developments (CVMC 19.14.485)
- (5) Unclassified uses (CVMC 19.14.485)
- (6) Remodels with a valuation of \$20,000 or more for the above uses (CVMC 19.14.485)
- (7) Projects requiring Precise Plans (CVMC 19.14.485)
- (8) Parking lots with five or more stalls (CVMC 19.14.485)
- (9) Graded slopes (CVMC 19.14.485)
- (10) Parks and open space (CVMC 17.10)

4-302.3 **Model home** complexes for single family and/or multi-family projects shall submit a landscape plan for at least one model home. Construction of single-family homes or duplexes on individual lots are not normally required to submit a landscape plan. In addition, developers of single-family residential projects with 5 or more units shall provide written information on designing, installing and maintaining water efficient landscapes, to all new homeowners. At least one model home shall post a sign directing the attention of prospective purchasers to drought-tolerant features within the landscape design.

4-303 Form And Content

4-303.1 **General**

- (1) Planting and irrigation plans shall be prepared by a registered landscape architect and shall be accurate drawings which are technically correct and complete and shall show in detail all planting and facilities required to be constructed or installed.
- (2) Planting and Irrigations plans shall conform to the format set forth in the City of Chula Vista Landscape Manual.
- (3) Street trees, where required in parkways or in an adjacent street tree planting easement may be shown on the Street Improvement plans. The type, size, and location shall be in conformance with the details on the approved Tentative Map.

4-304 Processing

4-304.1 Erosion Control, Landscape & Irrigation Plans for Public Property, Right-of-Way, Public Parks & Open Space Maintenance Districts

- (1) First Submittal Requirements.
 - a) First Submittals of Landscape Improvement plans for public property associated with a subdivision shall be submitted to the Engineering Division when the second submittal of the associated grading plans is submitted to Public Works Operations Department and shall contain the number of bluelines specified in Section 5-200 of this manual.
 - b) The Landscape Improvement plans will be routed to the appropriate departments for review and final processing in accordance with the Chula Vista Landscape Manual.
 - c) Submittals will only be accepted in conformance with Section 5-203 of this manual
- (2) Final Submittal - Prior to approval two bluelines of the landscape improvement plans shall be submitted to the Engineering Division for review.
- (3) Landscape improvement plans and bonds must be submitted and approved prior to issuance of a Land Development (grading) permit unless otherwise approved by the Director of Planning & Building (or the Director of the Office of Buildnig and Park Construction) or its designee.

4-304.2 Landscape Improvement plans for privately maintained open space, parks, and/or common areas shall be processed as set forth in the Chula Vista Landscape Manual.

CONSTRUCTION PLANS
SECTION 4-400
CONSTRUCTION PERMITS

4-400 CONSTRUCTION PERMITS

Construction permits are required to construct public improvements without a Subdivision Improvement Agreement. Generally the types of projects that require a construction permit are associated with construction on private property that requires public improvements, minor subdivision (parcel) maps, and advance permits for major subdivisions or SPA developments. Construction permit plans show all work required, including grading, to construct public improvements.

4-401 Form & Content – Plans required for issuance of a construction permit generally follow the form and content requirements for Improvement Plans (Section 4-100) and Grading Plans (Section 4-200) as applicable. The typical construction notes required on the plans is an appropriate mixture of the typical notes for improvement and grading plans

4-402 Processing – Construction Permit plans are processed either by the Permit Section or, in the case of major subdivisions and advance permits, the Subdivision Section.

4-402.1 **First Submittals** - First submittals for all Construction Permit plans shall contain the items listed in Sections 4-103 and 4-203. Submittal times for the two sections are:

- (1) Permit Section Submittals - Monday through Friday during normal working hours (8:00 a.m. to 5:00 p.m.). Submittals will be accepted only from the engineer of work. Submittals sent by runner or courier will not be accepted unless prior arrangements have been made.
- (2) Subdivision Section Submittals - Monday, Wednesday and Friday between 8:00 a.m. and 12:00 p.m. unless prior arrangements have been made. Submittals will be accepted only from the engineer of work. Submittals sent by runner or courier will not be accepted unless prior arrangements have been made.

4-402.2 Subsequent Submittals for either section will be accepted only through appointment with the plan checker unless prior arrangements have been made.

4-402.3 The following items are required prior to plan approval and issuance of a Construction Permit:

- (1) Mylars and print package of signed plans (Section 5-201)
- (2) Inspection deposit
- (3) Completed application form (Section 4-403.1)
- (4) Required bonds (usually one-job bonds. Section 4-403.2)
- (5) Traffic Control Agreement (Section 4-403.3)
- (6) Barricade Agreement (Section 4-403.4)
- (7) Street Permit Card (Section 4-403.5)
- (8) Cal-OSHA Certification (if required. Section 4-403.6)

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4-403 SAMPLE DOCUMENTS

4-403.1 Construction Permit Application

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4-403.2 SAMPLE BOND FORM

File No. _____

Note: For current bond forms see: www.ci.chula-vista.ca.us

Bond No. _____

Premium _____

BOND FOR STREET IMPROVEMENTS

(To Be Used With A Construction Permit)

KNOW ALL PERSONS BY THESE PRESENTS,

That I/We _____ as Principal, and _____, a corporation of the State of _____, as Surety, are held and firmly bound unto the City of Chula Vista, a municipal corporation, in the County of San Diego, State of California, and to and for the benefit of any and all persons who may suffer damages by reason of the breach of the conditions hereof, in the sum of _____ dollars, (\$_____) lawful money of the United States of America, to be paid to the said City of Chula Vista, or to any and all persons who may suffer damages by reason of the breach of any of the conditions hereof, for which payment well and truly to be made, the Principal hereby binds himself, his successors and assigns, and the Surety herein binds itself, its successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above-bound Principal is desirous of obtaining a license and permit to do one such job within the City of Chula Vista and of complying with regulations prescribed by the applicable ordinances and standards of said City to secure such license and permit, said job to performed at the location commonly known as _____ Chula Vista, California, in accordance with ☐ Construction Permit No. _____, or ☐ Other instrument _____ and as shown on approved plans: Chula Vista drawing nos. _____.

NOW, THEREFORE, the condition of the above obligation is such that whenever the said Principal shall construct any street improvements in or upon any public highway, lane, alley, court, park, street or public place in the City of Chula Vista, State of California, if the above-bound Principal shall cause all such work to be done, and improvements to be made to the official grade and according to the specifications therefore as prescribed by the ordinances and standard of the City of Chula Vista in force at the time of making such improvement, or doing such work, and when such improvement or work consists of, or includes, sidewalk, curb or street paving, the improvement shall be graded to the official grade, and all debris and surplus material shall be removed from the street upon the completion of such work or improvement, all as specified in the ordinances and standards of said City in such cases made and provided, then this obligation shall be void, otherwise to remain in full force and effect; and conditioned further that this bond shall inure to the benefit of the City of Chula Vista, and to and for the benefit of all persons who may suffer damage by reason of the breach of any of the conditions hereof, and any persons so damaged may bring suit upon said bond in his own name, provided that in the event of the failure of the Principal to construct any

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sidewalk, curb, gutter or pavement as hereinabove mentioned in compliance with the specifications as prescribed by the ordinances and standards of the City of Chula Vista, or to the official grade, the damages to the City of Chula Vista will be deemed to include the cost of removing such defective work and constructing same according to the grade and/or according to specifications prescribed by ordinances and standards; in addition, this bond shall be conditioned upon the Surety's full compliance with all terms and conditions of the required permit and further conditioned upon full compliance with all provisions of the ordinances and standards of the City of Chula Vista.

PROVIDED FURTHER, that this bond shall not be void upon the first recovery, but may be sued and recovered upon from time to time and judgments may be recovered hereon by said City or any person aggrieved or damaged in his own name, until the whole penalty is exhausted, and the life of the obligation of this bond shall continue for such length of time as such license remains in force, and for thirty (30) days thereafter.

As part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, and including reasonable attorney's fees, incurred by City in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

IN WITNESS WHEREOF, the said Principal and Surety and each hereunto set their hands, this _____ day of _____, 20 ____.

PRINCIPAL:

Bond

No.

Name of Contracting Company (Please print)

Signature

Date _____

Print name

SURETY:

Name of officer (Please print)

Title _____

Name of surety company

Address

City

State

Zip

Date _____

Signature

(Notary Acknowledgment and Corporate Authorization Required for Each Signatory)

Approved as to form:
CITY ATTORNEY

By: _____
H:\Engineering Website\Subdivision Manual\Subdivision Manual Text\Word Version\Chapters\Section 4.doc

4-403.3 Sample Traffic Control Agreement

4-403.4 Sample Barricade Agreement

4-403.5 Sample Street Card

4-403.6 Sample Cal-OSHA Certification

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CONSTRUCTION PLANS
SECTION 4-500
REVISIONS, CONSTRUCTION CHANGES
AND AS-BUILTS

4-500 CONSTRUCTION CHANGES AND AS-BUILTS

4-501 General

- 4-501.1 Revisions are changes in the design required by changed design requirements identified prior to start of construction. Revisions shall follow the general procedure in Section 4-502.
- 4-501.2 Construction Changes are changes in the design required by unforeseen field conditions. Construction changes shall be approved before the proposed change is constructed. Construction changes must be submitted to the Inspection Section, but may be processed either by the Land Development Section or by the Inspection Section as determined by the Inspection Section, and shall follow the general procedure in Section 4-502
- 4-501.3 As-built changes are revisions to construction plans to reflect as constructed conditions. As-builts are to be processed by the Inspection Section following the general procedure in Section 4-502 and must be complete and approved prior to acceptance of all public improvements and release of bonds. Grading plans are as-built in accordance with Section 15.04.140 of the Municipal Code Typically, the following items are added to approved plans during the as-built process:
- (1) Add sewer laterals to plan view with a distance from the closest property line indicated, show backflow preventors on plan view, and complete sewer lateral table.
 - (2) List structural street sections with limits indicated for each change;
 - (3) Show street light conduit locations, pull boxes and power sources;
 - (4) Show driveway locations including driveway centerline with street centerline stationing and width of driveway.

4-502 General Procedure

- (1) Submit two sets of blueprints with changes indicated in red.
- (2) After changes are approved provide one set of sepia's for City files and check out mylars. Mylars may be checked out by the Engineer of Work or a bonded messenger approved by the City.
- (3) Make revisions on originals per approved redline changes. Alternatively, computer generated "As-Built" mylars and a digital "As-Built" file in DWG format, upon approval of the redline blueprint plan, may be submitted in-lieu of hand-drafted revisions, but must be signed by the Inspection Section Senior Civil Engineer and must include the "As-Built Replacement Street Approval" as specified in Section 4-503.
- (4) Complete "Engineer of Work Certificate" on title sheet and "As-Built Certificate" on each plan sheet (See Section 4-105 and 4-208)
- (5) Submit revised mylar and the approved blueprints to City for signature.
- (6) Provide mylar and number of blueprints as specified in Section 5-200.
- (7) New mylars may not be submitted for construction changes unless otherwise approved by the City Engineer.

4-503 As-Builts with Replacement Mylars

- 1) Submit two sets of bluelines with changes indicated in red for review and approval.
- 2) .After changes are approved, submit replacement mylars for signature showing all approved changes from original plans in a revision bubble. Include the following additional signature box for City approval of replacement mylar:

<u>AS-BUILT REPLACEMENT SHEET APPROVAL</u>	
Civil Engineer _____	Date _____
Senior Civil Engineer _____	Date _____
Original City Engineer approval date: _____	

- 3) Complete "Engineer of Work Certificate" on title sheet and "As -Built Certificate" on each plan sheet (See Section 4-105 and 4-208)
- 4) Provide copies of approved as -builds as specified in Section 5 -200.

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